

1. iglide[®] ...

Plastic plain bearings



...plastics

Application Examples - iglide®

Exciting applications can be viewed online at ▶ www.igus.com/iglide-applications

SIX FLAGS THEME PARKS (Rollercoaster)

Here iglide® Z bearings led to significant reduction of the costs. This was achieved by eliminating the maintenance work completely during the season. With iglide® Z

bearings it is not necessary to check or re-lubricate the units and shafts. Also it was possible to reduce the weight.





SURGICAL LIGHT

The motor-powered swiveling LED wings are adjusted with the aid of iglide® JVFM bearings. Lubrication and maintenance free.



WASHING CHAIN BEARINGS

Reduction of the drive power for bottle washing machines by using iglide® under the most difficult conditions in a 2-3% caustic soda and temperature of +176 °F.



SPREADERS

Main reasons for iglide® bearings: The special design to complement the centrifugal arm results in a significant reduction of manufacturing costs. It is also maintenance free and has high wear resistance.



TOOL CHANGER CHAIN

Main reasons for iglide® bearings: Enormous cost advantages in comparison to standard metallic rolled bearings as well as low coefficient of friction also with soft shaft materials.



AXLE BOX ARRANGEMENT

The edge load is usually a deciding factor for or against the use of bearings. iglide® G300 bearings solve this, also giving high wear resistance, low costs, resistance to corrosion and dirt.



TUBULAR BAG MACHINES

The continuous operating temperature in the bonding arms frequently reach +320 °F and higher. These requirements are met by iglide® Z bearings which also offer particularly high resistance to wear.

iglide® Selection - Materials overview

iglide® – Best sellers from stock

Best sellers



The best selling iglide® bearing worldwide
iglide® G300
➤ Page 83



Low friction, low wear
iglide® J
➤ Page 115



Excellent vibration dampening
iglide® M250
➤ Page 135



Low cost
iglide® R
➤ Page 159

iglide® for all kind of applications – Standards and specialists from stock

General purpose



The most sold iglide® bearing worldwide
iglide® G300
➤ Page 83



Excellent vibration dampening
iglide® M250
➤ Page 135



Low water absorption
iglide® P
➤ Page 217



Flexible, wear resistant & more
iglide® P210
➤ Page 231

For long service life



Low friction, low wear
iglide® J
➤ Page 115



Low wear on all shafts
iglide® L280 (W300)*
➤ Page 171



Ideal for plastic shafts
iglide® J260
➤ Page 259



Runs up to three times longer than iglide® J
iglide® J3
➤ Page 267

High temperatures up to +482 °F



High temperatures, chemical resistance
iglide® T500 (X)*
➤ Page 193



Runs up to six times longer than iglide® T500 (X)*
iglide® X6
➤ Page 325



For soft shafts, up to +392 °F
iglide® V400
➤ Page 335



For high dynamic loads, wear resistant
iglide® Z
➤ Page 343

High media resistance



High temperatures, chemical resistance
iglide® T500 (X)*
➤ Page 193



Universal
iglide® H
➤ Page 369



Long life operation
iglide® H1
➤ Page 377



For under water
iglide® H370
➤ Page 389

For contact with food



FDA-compliant general purpose material
iglide® A180
➤ Page 423



The food grade material, FDA-compliant/EC Directive
iglide® A181
➤ Page 431



FDA-compliant, for low speeds
iglide® A200
➤ Page 441



Temperature and wear resistant, FDA-compliant
iglide® A350
➤ Page 447

For high loads



For high loads
iglide® Q
➤ Page 505



For extreme loads
iglide® Q2
➤ Page 517

Special application areas



Electrically conductive
iglide® F
➤ Page 539



ESD compatible
iglide® F2
➤ Page 549



The automotive standard
iglide® H4
➤ Page 557



For fast rotation under water
iglide® UW
➤ Page 565

*W300 is the European material equivalent for iglide® L280, X is the European equivalent material for iglide® T500



**Low wear on
all shafts**

iglide® L280 (W300)*

► Page 171



**High temperatures,
chemical resistance**

iglide® T500 (X)*

► Page 193



Versatile

iglide® K

► Page 241



**High temperatures,
versatile**

iglide® J350

► Page 279



**General purpose
endurance runner**

iglide® W360

► Page 291



For high speeds

iglide® L250

► Page 299

iglide® specialists on request



**Low-cost material for
high quantities**

iglide® GLW

► Page 247



**Low-cost material
with silicone**

iglide® D

► Page 307



**Specially for
aluminum shafts**

iglide® J200

► Page 313



For hot liquids

iglide® UW500

► Page 357



Low-cost

iglide® H2

► Page 411



**Up to +482°F,
wear resistant**

iglide® C500

► Page 403



**Temperature and chemical
resistance, FDA-compliant**

iglide® A500

► Page 459



**Chemicals & food,
FDA-compliant**

iglide® A160

► Page 471



Robust

iglide® A290

► Page 479



KTW-compliant

iglide® UW160

► Page 485



**For the tobacco industry,
FDA-compliant**

iglide® T220

► Page 493



The heavy-duty bearing

iglide® TX1

► Page 527



The biopolymer

iglide® N54

► Page 573



**V0 rating according to
UL94, universal**

iglide® G V0

► Page 581



**Versatile and
cost-effective**

iglide® J2

► Page 589

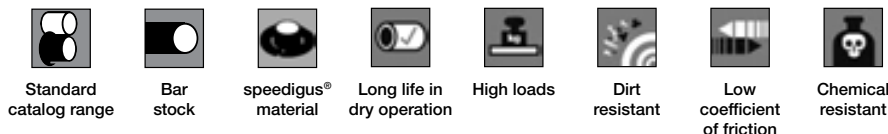


**Heavy duty on
soft shafts**

iglide® Q290

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iglide® - Selection according to main criteria



		Standard catalog range	Bar stock	speedigus material	Long life in dry operation	High loads	Dirt resistant	Low coefficient of friction	Chemical resistant	Page
Best sellers	iglide® G300	●		●	●	●	●			83
	iglide® J	●	●	●	●			●		115
	iglide® M250	●	●	●	●		●			135
	iglide® R	●	●		●			●		159
	iglide® L280 (W300)*	●	●	●	●		●	●		171
	iglide® T500 (X)*	●	●	●	●	●			●	193
General purpose	iglide® P	●		●	●		●			217
	iglide® P210	●	●		●		●			231
	iglide® K	●			●			●		241
	iglide® GLW						●			247
Long service life	iglide® J260	●	●		●			●		259
	iglide® J3	●	●		●			●		267
	iglide® J350	●	●		●	●		●	●	279
	iglide® W360	●			●			●		291
	iglide® L250	●			●			●		299
	iglide® D							●		307
	iglide® J200		●		●		●	●		313
High temperatures	iglide® X6	●			●	●		●	●	325
	iglide® V400	●			●			●	●	335
	iglide® Z	●			●	●		●	●	343
	iglide® UW500								●	357
High media resistance	iglide® H	●		●					●	369
	iglide® H1	●	●		●	●		●	●	377
	iglide® H370	●						●	●	389
	iglide® C500	●	●		●	●			●	403
	iglide® H2			●					●	411
For contact with food	iglide® A180	●	●	●	●			●		423
	iglide® A181	●	●		●			●		431
	iglide® A200	●					●			441
	iglide® A350	●	●		●			●	●	447
	iglide® A500	●	●			●			●	459
	iglide® A160	●	●						●	471
	iglide® A290	●				●				479
	iglide® UW160	●	●						●	485
	iglide® T220		●							493
For high loads	iglide® Q	●			●	●		●		505
	iglide® Q2	●			●	●	●			517
	iglide® TX1	●			●	●	●		●	527
Special application areas	iglide® F	●				●				539
	iglide® F2	●	●		●		●			549
	iglide® H4	●			●	●		●	●	557
	iglide® UW	●								565
	iglide® N54	●								573
	iglide® G V0	●			●		●			581
	iglide® J2	●	●							589

*W300 is the European material equivalent for iglide® L280, X is the European equivalent material for iglide® T500

iglide® - Selection according to main criteria



Low water absorption



Underwater use



Edge pressure



Vibrations dampening



Food suitable



Temperatures up to +194°F



Temperatures up to +302°F



Economic

Page

	Low water absorption	Underwater use	Edge pressure	Vibrations dampening	Food suitable	Temperatures up to +194°F	Temperatures up to +302°F	Economic	Page	
iglide® G300						●		●	83	Best sellers
iglide® J	●		●			●		●	115	
iglide® M250			●	●				●	135	
iglide® R	●		●			●		●	159	
iglide® L280 (W300)*			●			●		●	171	
iglide® T500 (X)*	●	●				●	●		193	
iglide® P	●					●		●	217	General purpose
iglide® P210	●		●			●		●	231	
iglide® K	●					●	●	●	241	
iglide® GLW						●		●	247	
iglide® J260	●					●		●	259	Long service life
iglide® J3	●		●			●			267	
iglide® J350	●	●	●			●	●		279	
iglide® W360	●					●	●	●	291	
iglide® L250			●			●			299	
iglide® D	●		●			●		●	307	
iglide® J200	●		●			●			313	
iglide® X6	●					●	●		325	High temperatures
iglide® V400	●		●			●	●		335	
iglide® Z	●		●			●	●		343	
iglide® UW500	●	●				●	●		357	
iglide® H	●	●				●	●		369	High media resistance
iglide® H1	●	●				●	●		377	
iglide® H370	●	●				●	●		389	
iglide® C500	●	●	●			●	●		403	
iglide® H2	●	●				●	●		411	
iglide® A180	●		●		●	●		●	423	For contact with food
iglide® A181	●		●		●	●		●	431	
iglide® A200			●	●	●				441	
iglide® A350	●	●	●		●	●	●		447	
iglide® A500	●	●	●		●	●	●		459	
iglide® A160	●				●	●			471	
iglide® A290						●			479	
iglide® UW160	●	●				●		●	485	
iglide® T220					●	●			493	
iglide® Q						●			505	For high loads
iglide® Q2			●	●		●		●	517	
iglide® TX1	●	●				●	●		527	
iglide® F						●			539	Special application areas
iglide® F2	●		●			●			549	
iglide® H4	●	●	●			●	●	●	557	
iglide® UW	●	●				●		●	565	
iglide® N54						●			573	
iglide® G V0						●		●	581	
iglide® J2	●		●			●		●	589	

iglide® - Selection according to main criteria

		Surface pressure [psi]							Temperature [°F]					Page
		0	2,901	5,802	8,702	11,600	14,500	17,400	20,310	0	122	212	302	
Best sellers	iglide® G300	[Bar chart: 0-11,600]							[Bar chart: 0-302]					83
	iglide® J	[Bar chart: 0-5,802]							[Bar chart: 0-212]					115
	iglide® M250	[Bar chart: 0-2,901]							[Bar chart: 0-122]					135
	iglide® R	[Bar chart: 0-2,901]							[Bar chart: 0-212]					159
	iglide® L280 (W300)*	[Bar chart: 0-8,702]							[Bar chart: 0-302]					171
	iglide® T500 (X)*	[Bar chart: 0-20,310]							[Bar chart: 0-482]					193
General purpose	iglide® P	[Bar chart: 0-5,802]							[Bar chart: 0-212]					217
	iglide® P210	[Bar chart: 0-5,802]							[Bar chart: 0-212]					231
	iglide® K	[Bar chart: 0-5,802]							[Bar chart: 0-302]					241
	iglide® GLW	[Bar chart: 0-11,600]							[Bar chart: 0-212]					247
Long service life	iglide® J260	[Bar chart: 0-5,802]							[Bar chart: 0-212]					259
	iglide® J3	[Bar chart: 0-5,802]							[Bar chart: 0-212]					267
	iglide® J350	[Bar chart: 0-8,702]							[Bar chart: 0-302]					279
	iglide® W360	[Bar chart: 0-11,600]							[Bar chart: 0-302]					291
	iglide® L250	[Bar chart: 0-5,802]							[Bar chart: 0-212]					299
	iglide® D	[Bar chart: 0-2,901]							[Bar chart: 0-212]					307
	iglide® J200	[Bar chart: 0-2,901]							[Bar chart: 0-212]					313
High temperatures	iglide® X6	[Bar chart: 0-20,310]							[Bar chart: 0-482]					325
	iglide® V400	[Bar chart: 0-5,802]							[Bar chart: 0-302]					335
	iglide® Z	[Bar chart: 0-20,310]							[Bar chart: 0-302]					343
	iglide® UW500	[Bar chart: 0-17,400]							[Bar chart: 0-302]					357
High media resistance	iglide® H	[Bar chart: 0-11,600]							[Bar chart: 0-302]					369
	iglide® H1	[Bar chart: 0-11,600]							[Bar chart: 0-302]					377
	iglide® H370	[Bar chart: 0-8,702]							[Bar chart: 0-302]					389
	iglide® C500	[Bar chart: 0-14,500]							[Bar chart: 0-482]					403
	iglide® H2	[Bar chart: 0-11,600]							[Bar chart: 0-302]					411
Applications with food contact	iglide® A180	[Bar chart: 0-2,901]							[Bar chart: 0-212]					423
	iglide® A181	[Bar chart: 0-2,901]							[Bar chart: 0-212]					431
	iglide® A200	[Bar chart: 0-2,901]							[Bar chart: 0-212]					441
	iglide® A350	[Bar chart: 0-8,702]							[Bar chart: 0-302]					447
	iglide® A500	[Bar chart: 0-17,400]							[Bar chart: 0-482]					459
	iglide® A160	[Bar chart: 0-2,901]							[Bar chart: 0-212]					471
	iglide® A290	[Bar chart: 0-8,702]							[Bar chart: 0-302]					479
	iglide® UW160	[Bar chart: 0-2,901]							[Bar chart: 0-212]					485
	iglide® T220	[Bar chart: 0-5,802]							[Bar chart: 0-212]					493
High loads	iglide® Q	[Bar chart: 0-14,500]							[Bar chart: 0-302]					505
	iglide® Q2	[Bar chart: 0-17,400]							[Bar chart: 0-302]					517
Special application areas	iglide® F	[Bar chart: 0-14,500]							[Bar chart: 0-302]					539
	iglide® F2	[Bar chart: 0-5,802]							[Bar chart: 0-212]					549
	iglide® H4	[Bar chart: 0-8,702]							[Bar chart: 0-302]					557
	iglide® UW	[Bar chart: 0-5,802]							[Bar chart: 0-212]					565
	iglide® N54	[Bar chart: 0-5,802]							[Bar chart: 0-212]					573
	iglide® G V0	[Bar chart: 0-11,600]							[Bar chart: 0-302]					581
	iglide® J2	[Bar chart: 0-5,802]							[Bar chart: 0-212]					589

Maximum permissible surface pressure of iglide® bearings at
■ +68 °F
■ +176 °F

Important temperature limits of iglide® bearings
■ Maximum permissible application temperature, continuous
■ Temperature where bearings need to be secured against radial or axial movement in the housing

*W300 is the European material equivalent for iglide® L280, X is the European equivalent material for iglide® T500

iglide® - Selection according to main criteria

	Coefficient of friction [μ]							Shaft	Wear [$\mu\text{m}/\text{km}$]					Shaft	Page	
	0	0.1	0.2	0.3	0.4	0.5	0.6		0	3	6	9	12			
iglide® G300	[Bar chart]							3	[Bar chart]					3	83	Best sellers
iglide® J	[Bar chart]							5	[Bar chart]					3	115	
iglide® M250	[Bar chart]							3	[Bar chart]					5	135	
iglide® R	[Bar chart]							6	[Bar chart]					1	159	
iglide® L280 (W300)*	[Bar chart]							7	[Bar chart]					7	171	
iglide® T500 (X)*	[Bar chart]							3	[Bar chart]					4	193	
iglide® P	[Bar chart]							3	[Bar chart]					1	217	General purpose
iglide® P210	[Bar chart]							6	[Bar chart]					7	231	
iglide® K	[Bar chart]							3	[Bar chart]					3	241	
iglide® GLW	[Bar chart]							1	[Bar chart]					2	247	Long service life
iglide® J260	[Bar chart]							6	[Bar chart]					3	259	
iglide® J3	[Bar chart]							7	[Bar chart]					3	267	
iglide® J350	[Bar chart]							2	[Bar chart]					7	279	
iglide® W360	[Bar chart]							6	[Bar chart]					3	291	
iglide® L250	[Bar chart]							4	[Bar chart]					6	299	High temperatures
iglide® D	[Bar chart]							7	[Bar chart]					7	307	
iglide® J200	[Bar chart]							6	[Bar chart]					7	313	
iglide® X6	[Bar chart]							6	[Bar chart]					5	325	High media resistance
iglide® V400	[Bar chart]							7	[Bar chart]					3	335	
iglide® Z	[Bar chart]							1	[Bar chart]					3	343	
iglide® UW500	[Bar chart]							3	[Bar chart]					6	357	Applications with food contact
iglide® H	[Bar chart]							3	[Bar chart]					5	369	
iglide® H1	[Bar chart]							7	[Bar chart]					3	377	
iglide® H370	[Bar chart]							2	[Bar chart]					2	389	
iglide® C500	[Bar chart]							2	[Bar chart]					3	403	
iglide® H2	[Bar chart]							6	[Bar chart]					7	411	High loads
iglide® A180	[Bar chart]							5	[Bar chart]					3	423	
iglide® A181	[Bar chart]							1	[Bar chart]					7	431	
iglide® A200	[Bar chart]							4	[Bar chart]					3	441	
iglide® A350	[Bar chart]							6	[Bar chart]					2	447	
iglide® A500	[Bar chart]							3	[Bar chart]					2	459	Special application areas
iglide® A160	[Bar chart]							6	[Bar chart]					7	471	
iglide® A290	[Bar chart]							3	[Bar chart]					7	479	
iglide® UW160	[Bar chart]							3	[Bar chart]					2	485	
iglide® T220	[Bar chart]							3	[Bar chart]					3	493	
iglide® Q	[Bar chart]							6	[Bar chart]					3	505	
iglide® Q2	[Bar chart]							4	[Bar chart]					4	517	
iglide® F	[Bar chart]							6	[Bar chart]					1	539	
iglide® F2	[Bar chart]							3	[Bar chart]					3	549	
iglide® H4	[Bar chart]							3	[Bar chart]					5	557	
iglide® UW	[Bar chart]							3	[Bar chart]					6	565	
iglide® N54	[Bar chart]							1	[Bar chart]					3	573	
iglide® G V0	[Bar chart]							6	[Bar chart]					6	581	
iglide® J2	[Bar chart]							7	[Bar chart]					3	589	

Coefficients of friction of iglide® bearings against steel rotating, p = 145 psi, v = 59 fpm

■ Average of all the seven sliding combinations tested
■ Coefficient of friction of best combination











Wear of iglide® bearings against steel rotating, p = 145 psi

■ Average of all the seven sliding combination tested
■ Wear of best combination

Shaft material:

1 = 1050, case hardened 3 = Hard anodized aluminum 5 = Machinery steel 7 = 440B stainless
2 = 1050, case hardened steel, chromed 4 = Free-cutting steel 6 = 304 stainless

iglide® - Material properties table

		Best sellers						General purpose			
		G	J	M250	R	L280 (W300)*	T500 (X)*	P	P210	K	GLW
General properties	Density [g/cm ³]	1.46	1.49	1.14	1.39	1.24	1.44	1.58	1.40	1.52	1.36
	Color ¹⁾										
	Max. moisture absorption at +73°F/50% r.h. [% weight]	0.7	0.3	1.4	0.2	1.3	0.1	0.2	0.3	0.1	1.3
	Max. moisture absorption [% weight]	4.0	1.3	7.6	1.1	6.5	0.5	0.4	0.5	0.6	5.5
	Coefficient of sliding friction, dynamic against steel [μ]	0.08–0.15	0.06–0.18	0.18–0.40	0.09–0.25	0.08–0.23	0.09–0.27	0.06–0.21	0.07–0.19	0.06–0.21	0.10–0.24
	pv value, max. (dry) [psi x fpm]	12,000	9,700	3,400	8,700	6,600	37,700	11,000	11,500	8,600	8,600
Mechanical properties	Modulus of elasticity [psi]	1,131,000	348,100	391,600	282,800	507,600	1,174,800	768,700	362,600	507,600	1,116,500
	Tensile strength at +68°F [psi]	30,460	10,590	16,240	10,150	18,130	24,660	17,400	10,150	11,600	34,075
	Compressive strength [psi]	11,310	8,702	7,542	9,863	8,847	14,500	9,572	7,252	8,702	10,730
	Max. permissible static surface pressure (+68°F) [psi]	11,600	5,076	2,901	3,336	8,702	21,760	7,252	7,252	7,252	11,600
	Shore-D-hardness	81	74	79	77	77	85	75	75	72	78
Physical and thermal properties	Max. long term application temperature [°F]	+266	+194	+176	+194	+194	+482	+266	+212	+338	+212
	Max. short term application temperature [°F]	+428	+248	+338	+230	+356	+599	+392	+320	+464	+320
	Min. application temperature [°F]	-40	-58	-40	-58	-40	-148	-40	-40	-40	-40
	Thermal conductivity [W/m · K]	0.24	0.25	0.24	0.25	0.24	0.60	0.25	0.25	0.25	0.24
	Coefficient of thermal expansion (+73°F) [K ⁻¹ · 10 ⁻⁶]	9	10	10	11	9	5	4	8	3	17
Electrical properties	Specific volume resistance [Ωcm]	> 10 ¹³	> 10 ¹³	> 10 ¹³	> 10 ¹²	> 10 ¹³	< 10 ⁵	> 10 ¹³	> 10 ¹²	> 10 ¹²	> 10 ¹¹
	Surface resistance [Ω]	> 10 ¹¹	> 10 ¹²	> 10 ¹¹	> 10 ¹²	> 10 ¹²	< 10 ³	> 10 ¹²	> 10 ¹¹	> 10 ¹²	> 10 ¹¹





If you are unsure which material you need, please go back to relevant selection tables or call us.

According to main properties ► Page 52; According to performance ► Page 54










¹⁾ Similar color, please refer to the individual materials tables in each chapter ► From page 83

*W300 is the European material equivalent for iglide® L280, X is the European equivalent material for iglide® T500

iglide® - Material properties table

Long service life							High temperatures				High media resistance				
J260	J3	J350	W360	L250	D	J200	X6	V400	Z	UW 500	H	H1	H370	C500	H2
1.35	1.42	1.44	1.34	1.5	1.4	1.72	1.53	1.51	1.4	1.49	1.71	1.53	1.66	1.37	1.72
															
0.2	0.3	0.3	0.2	0.7	0.3	0.2	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.3	0.1
0.4	1.3	1.6	1.6	3.9	1.1	0.7	0.5	0.2	1.1	0.5	0.3	0.3	0.1	0.5	0.2
0.06-0.20	0.06-0.20	0.10-0.20	0.07-0.21	0.08-0.19	0.08-0.26	0.11-0.17	0.09-0.25	0.15-0.20	0.06-0.14	0.20-0.36	0.07-0.20	0.06-0.20	0.07-0.17	0.07-0.19	0.07-0.30
10,000	14,000	13,000	10,000	11,500	8,700	8,600	38,350	14,000	24,000	10,000	39,000	22,800	21,000	19,500	16,500
319,100	391,600	290,100	555,350	282,800	290,100	406,100	2,320,600	652,670	348,100	3,320,600	1,813,000	406,100	1,610,000	435,110	1,494,000
8,702	10,150	7,977	17,259	9,718	10,440	8,412	42,060	13,779	13,775	37,710	35,380	7,977	19,580	14,500	30,460
7,252	8,702	8,702	ND	6,817	10,150	6,237	27,557	6,819	9,425	20,305	11,750	11,310	11,460	15,950	15,810
5,802	6,527	8,702	10,878	6,527	3,336	3,336	21,755	6,527	21,750	20,305	13,050	11,600	10,880	15,950	15,950
77	73	80	80	68	78	70	89	74	81	86	87	77	82	81	88
+248	+194	+356	+356	+194	+194	+194	+482	+392	+482	+482	+392	+392	+392	+482	+392
+284	+248	+428	+392	+356	+230	+248	+599	+464	+590	+572	+464	+464	+464	+572	+464
-148	-58	-148	-40	-40	-58	-58	-148	-58	-148	-148	-40	-40	-40	-148	-40
0.24	0.25	0.24	0.24	0.24	0.25	0.24	0.55	0.24	0.62	0.6	0.6	0.24	0.5	0.24	0.24
13	13	7	6	10	11	8	1.1	3	4	4	4	6	5	9	4
> 10 ¹²	> 10 ¹²	> 10 ¹³	> 10 ¹³	> 10 ¹⁰	> 10 ¹⁴	> 10 ⁸	< 10 ⁵	> 10 ¹²	> 10 ¹¹	< 10 ⁹	< 10 ⁵	> 10 ¹²	< 10 ⁵	> 10 ¹⁴	> 10 ¹⁵
> 10 ¹⁰	> 10 ¹²	> 10 ¹⁰	> 10 ¹²	> 10 ¹¹	> 10 ¹⁴	> 10 ⁸	< 10 ⁵	> 10 ¹²	> 10 ¹¹	< 10 ⁹	< 10 ²	> 10 ¹¹	< 10 ⁵	> 10 ¹³	> 10 ¹⁴

iglide® - Material properties table

		Applications with food contact								
		A180	A181	A200	A350	A500	A160	A290	UW160	T220
General properties	Density [g/cm ³]	1.46	1.38	1.14	1.42	1.28	1.00	1.41	1.04	1.28
	Color ¹⁾									
	Max. moisture absorption at +73°F/50% r.h. [% weight]	0.2	0.2	1.5	0.6	0.3	0.1	1.7	0.1	0.3
	Max. moisture absorption [% weight]	1.3	1.3	7.6	1.9	0.5	0.1	7.3	0.1	0.5
	Coefficient of sliding friction, dynamic against steel [μ]	0.05–0.23	0.10–0.21	0.10–0.40	0.10–0.20	0.26–0.41	0.09–0.19	0.13–0.40	0.17–0.31	0.20–0.32
	pv value, max. (dry) [psi x fpm]	8,750	8,750	2,900	11,500	8,000	7,800	6,600	6,250	8,000
Mechanical properties	Modulus of elasticity [psi]	333,600	277,500	362,600	290,100	522,100	166,900	1,276,000	195,700	261,100
	Tensile strength at +68°F [psi]	12,760	6,962	16,820	15,950	20,310	2,756	36,260	3,191	9,427
	Compressive strength [psi]	11,310	8,702	7,832	11,310	17,110	5,366	13,200	4,461	7,977
	Max. permissible static surface pressure (+68°F) [psi]	4,060	4,496	2,611	8,702	17,400	2,176	10,150	2,176	5,802
	Shore-D-hardness	76	76	81	76	83	60	88	60	76
Physical and thermal properties	Max. long term application temperature [°F]	+194	+194	+176	+356	+482	+194	+284	+194	+212
	Max. short term application temperature [°F]	+230	+230	+338	+410	+572	+212	+356	+212	+320
	Min. application temperature [°F]	-58	-58	-40	-148	-148	-58	-40	-58	-40
	Thermal conductivity [W/m · K]	0.25	0.25	0.24	0.24	0.24	0.30	0.24	0.50	0.24
	Coefficient of thermal expansion (+73°F) [K ⁻¹ · 10 ⁻⁵]	11	11	10	8	9	11	7	18	11
Electrical properties	Specific volume resistance [Ωcm]	> 10 ¹²	> 10 ¹²	> 10 ¹³	> 10 ¹¹	> 10 ¹⁴	> 10 ¹²	> 10 ¹¹	> 10 ¹²	> 10 ¹⁰
	Surface resistance [Ω]	> 10 ¹¹	> 10 ¹²	> 10 ¹²	> 10 ¹¹	> 10 ¹³	> 10 ¹²	> 10 ¹¹	> 10 ¹²	> 10 ¹⁰

If you are unsure which material you need, please go back to relevant selection tables or call us.

According to main properties ► Page 52; According to performance ► Page 54

¹⁾ Similar color, please refer to the individual materials tables in each chapter ► From page 83

iglide® - Material properties table

Applications with high loads			Special application areas							
Q	Q2	TX1	F	F2	H4	UW	N54	GV0	J2	Q290
1.4	1.46	2.1	1.25	1.52	1.79	1.52	1.13	1.53	1.44	1.27
										
0.9	1.1	n.b.	1.8	0.2	0.1	0.2	1.6	0.7	0.2	3.0
4.9	4.6	0.1	8.4	0.4	0.2	0.8	3.6	4.0	1.3	9.3
0.05–0.15	0.22–0.42	0.09–0.37	0.10–0.39	0.16–0.22	0.08–0.25	0.15–0.35	0.15–0.23	0.07–0.20	0.11–0.27	0.14–0.26
16,000	19,500	26,000	9,700	8,750	19,500	2,800	14,000	14,000	6,600	19,500
652,700	1,214,000	1,740,000	1,682,000	1,076,000	1,088,000	1,392,000	261,000	1,146,000	522,900	445,800
17,400	34,810	7,977	37,710	13,490	17,400	13,050	10,150	20,310	14,650	14,070
12,910	18,850	31,910	14,210	8,847	7,252	10,150	4,351	14,500	11,170	9,863
14,500	17,400	29,000	15,230	6,817	9,427	5,802	8,700	10,880	6,672	7,977
83	80	94	84	72	80	78	74	80	ND	80
+275	+266	+248	+284	+248	+392	+194	+176	+266	+194	+284
+311	+392	+338	+356	+329	+464	+230	+248	+410	+230	+356
-40	-40	-76	-40	-40	-40	-58	-40	-40	-58	-40
0.23	0.24	0.24	0.65	0.61	0.24	0.6	0.24	0.25	0.25	0.24
5	8	3	12	5	5	6	9	9	7	7
> 10 ¹⁵	> 10 ¹³	> 10 ¹¹	< 10 ³	< 10 ⁹	> 10 ¹³	< 10 ⁵	> 10 ¹³	> 10 ¹²	> 10 ¹³	> 10 ¹⁰
> 10 ¹²	> 10 ¹¹	> 10 ¹³	< 10 ²	< 10 ⁹	> 10 ¹²	< 10 ⁵	> 10 ¹¹	> 10 ¹¹	> 10 ¹²	> 10 ¹²

iglide® - Plastics for longer life®



iglide® plain bearings, the right solution for every application



Example of a tribological test in the igus® laboratory



igus® plastic bearings, over 40 years of knowledge and progressive innovation for longer life solutions in all industries

iglide® – Plain bearings made of high performance polymers

Highly wear-resistant tribopolymers improved by precisely harmonized additions of strengthening materials and solid lubricants, tested thousands times and proved a million times – that is iglide®. igus® engineers develop and test more than 100 new plastic compounds every year. The finely harmonized combination of plastic matrix, strengthening components and solid lubricants in every single tribopolymer results in an individual properties profile in each case. In more than 10,000 individual tests a year on over 200 test stands in the igus® test laboratory, all existing and potential iglide® materials, as well as other materials, are thoroughly tested. The findings go into a unique knowledge database on the tribology of maintenance free plastic plain bearings. This database enables us to select the ideal iglide® plain bearing for our customers depending on the application and calculate its anticipated service life. If necessary, it is also possible to develop an application-specific material, exactly adapted to the thermal, mechanical and tribological requirements, which goes beyond the existing iglide® range. In addition, freely accessible online tools simply to use enable every user to select their personal sliding bearing from iglide® program. Whether iglide® product finder or iglide® lifetime calculation, piston ring or bar stock configurator: with few clicks and application related information a suitable bearing is quickly found.

► www.igus.com/online-tools

iglide® - Plastics for longer life®

General properties of iglide® plain bearings

- Self-lubricating
- Corrosion resistance
- Good media resistance
- High compressive strength
- Vibration dampening
- Low coefficients of friction
- Maintenance free
- Low weight
- High wear resistance
- Very good price-performance ratio

Over and above the general properties, each iglide® bearing material possesses a series of special properties and strengths, which make it specially suitable for certain applications and requirements. You can find a comprehensive description of the materials in the respective chapters before the dimensions tables.

The traditional solution

Metal bearings with a PTFE sliding surface. Every lubricated bearing works according to this principle, and also a number of maintenance free bearings that are equipped with special slide layers. However, this soft sliding layer is often not strong enough, to withstand high loads, edge pressure or oscillations.

The iglide® solution: the self-lubricating effect

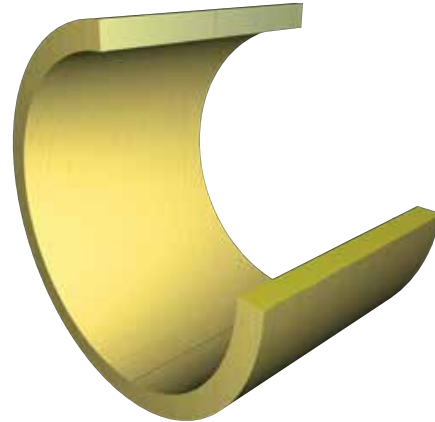
The high performance iglide® plain bearing materials are composed of:

- Base polymer
- Fibers and/or filaments
- Solid lubricants

These components **are not applied in layers**, but instead are homogeneously blended. The advantage of this design is clear when the requirements on the bearings surface are studied:

1. The coefficient of friction, which is determined especially by the surface of the bearing, should be as low as possible.
2. The surface cannot be removed by forces that act on the bearing.
3. The wearing force acts especially on the surface of the bearing, for this the bearing must be capable of high resistance.

That is why iglide® plain bearings work differently. Each task fulfilled by the bearing is represented by a component in the iglide® materials:



Picture 04: Injection molded iglide® plain bearings are homogeneously structured. Base polymer, bonding materials and solid lubricants mutually complement each other.

- The **base polymers** are responsible for the resistance to wear.
- **Fibers and filaments** reinforce the bearing so that high forces or edge loads are possible.
- **Solid lubricants** lubricate the bearing independently and prevent friction of the system.

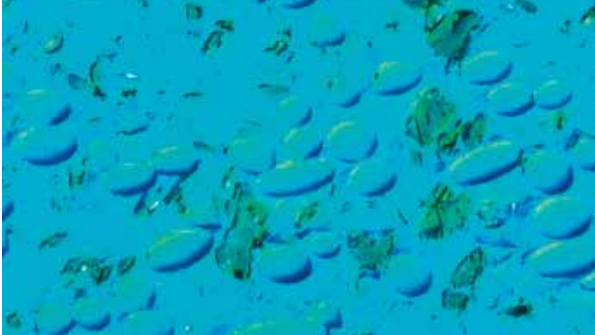
Base polymers and technical fibers

The radial pressure, with which the bearings are loaded, is received by the plastic base material. In the contact area, this material provides shaft support. The polymer base material ensures the lubricants do not receive a surface pressure that is too high. The base material is also reinforced by technical fibers or filaments. These additional materials stabilize the bearing, especially in cases of continuous stress.



Picture 05: Polymer granulate, basis compound of the self-lubricating and predictable iglide® bearings

iglide® - Plastics for longer life®



Picture 06: Base polymers with fibers and solid lubricants, magnified 200 times, dyed.

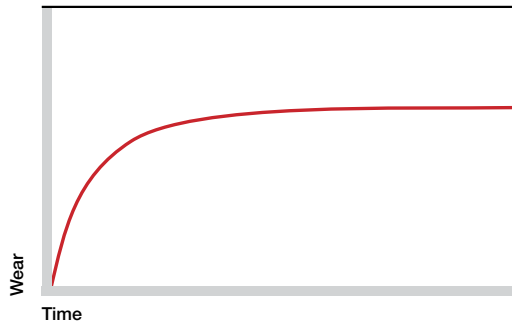


Diagram 01: During the start-up phase, the wear rate drops significantly, and then stabilizes.



Picture 07: iglide® expert – lifetime calculation only with 7 clicks

Incorporated self-lubrication

The solid lubricants are microscopically small particles, embedded in millions of tiny chambers of the fiber reinforced material. From these chambers, the plain bearings release tiny amounts of solid lubricants during movement. The solid lubricants help to lower the coefficient of friction of the iglide® bearing. Since they are embedded in the tiny chambers, they cannot be pressed out. They are always there as soon as the bearing or the shaft is set in motion.

The start-up phase

During the initial start-up phase, the shaft and the iglide® plain bearing become mated to one another. During this phase, the surfaces of both the shaft and the bearing are fitted to each other. The specific loading of the system drops as contact surfaces of the shaft and bearing expand during the start-up. At the same time, the rate of wear decreases and approaches a linear curve. In this phase, the coefficients of friction continue to change, until finally assuming a value that is generally constant.

Predictable service life – online

The proven iglide® lifetime expert in a completely updated version with lots of new features and even easier and faster product selection. Only 7 clicks and 4 entries generate a service life result. Reliable information on the service life of iglide® plastic plain bearings can be made on the basis of the igus® database. With the iglide® expert system you can easily calculate the service life of the iglide® maintenance free bearings in your application.

➤ www.igus.com/iglide-expert

iglide® - Technical Data

Compressive strength

The load of a plain bearing is expressed by the surface pressure [p] in psi. For this purpose, the radial load is determined on the projected surface of the bearing.

$$\text{Radial bearing: } p = \frac{F}{d1 \cdot b1}$$

For thrust bearings, the load is produced accordingly.

$$\text{Thrust bearing: } p = \frac{F}{(d2^2 - d1^2) \cdot \frac{\pi}{4}}$$

In these equations:

- F** load in lbs
- d1** bearing inner diameter in inches
- b1** bearing length in inches
- d2** outer diameter of the bearing in inches

Maximum recommended surface pressure

A comparative value of the iglide® material is the permissible average static surface pressure (p) at 68°F. The values of the individual iglide® plain bearings differ greatly on this point. The value (p) indicates the limit of the load of a plain bearing. The plain bearing can carry this load permanently without damage. The given value applies to static operation, only very slow speeds up to 1.97 fpm are tolerated under this load. Higher loads than those indicated are possible if the duration of the load is short. For a few minutes, the load can be more than doubled, depending on the material. Please contact igus® for additional information.

► Material table, [page 56](#)

Pressure and temperature

Diagram 02 and 03 show the recommended maximum static surface pressure [p] of the iglide® plain bearing as a function of temperature. When using the plain bearing, the bearing temperature can be higher than the ambient temperature, due to friction. Take advantage of the opportunity presented by the predictability of the iglide® plain bearing to record these effects in advance, or determine the effective temperatures in the test.

Pressure and speed

With decreasing radial load on the plain bearing, the permissible surface speed increases. The product of the load (p) and the speed (v) can be understood as a measurement for the frictional heat of the bearing. This relationship is shown by the pv-graph that is the first in the respective chapter for each iglide® material.

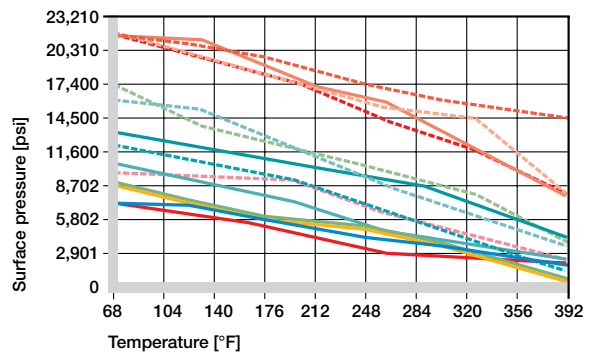
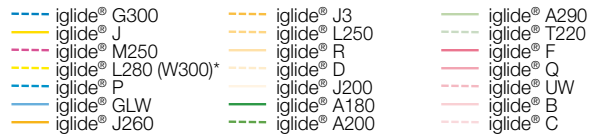
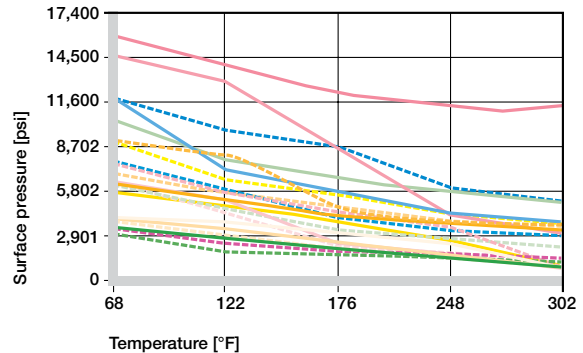


Diagram 02 and 03: Recommended maximum surface pressure of iglide® plain bearings as a function of temperature

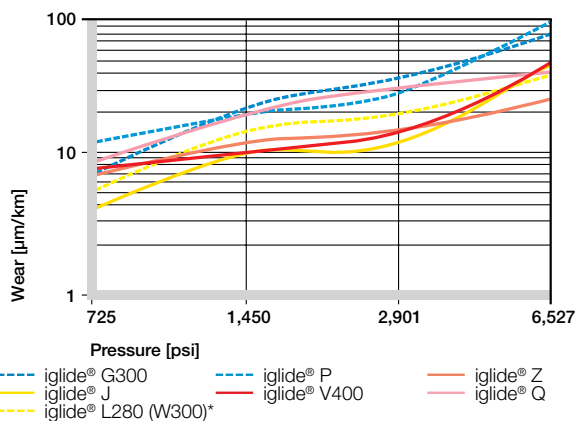


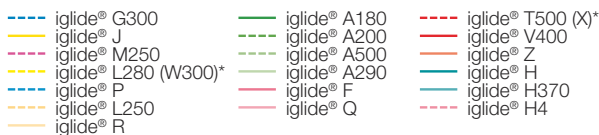
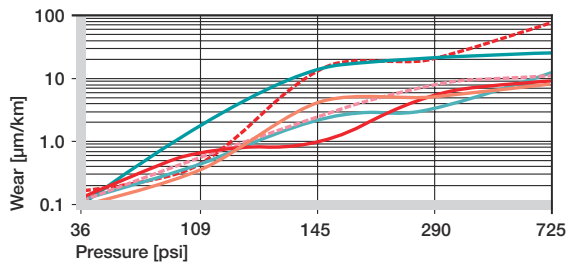
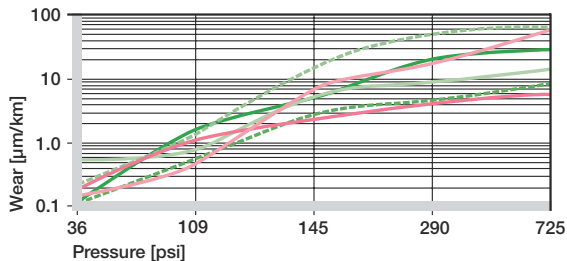
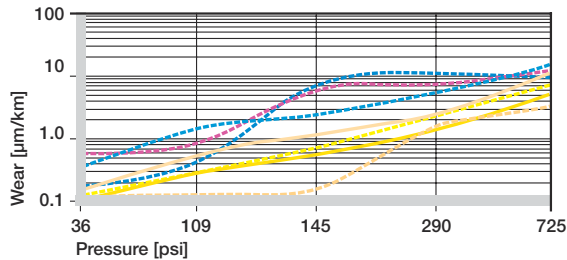
Diagram 04: Wear of iglide® plain bearings under medium and high pressures

*W300 is the European material equivalent for iglide® L280, X is the European equivalent material for iglide® T500

iglide® - Technical Data

Pressure and wear

The load of the plain bearing has an effect on the wear of the bearing. The following graphs show the wear behavior of the iglide® bearing materials. It is easily recognized that for each load, there is an optimal plain bearing available.



Diagrams 05-07: Wear of iglide® plain bearings under low pressures

Pressure and coefficient of friction

With increasing load, the coefficient of friction of the plain bearing typically decreases. In this context, shaft materials and the surface finish are also significant.

➤ Coefficient of friction, page 55

Surface speed

With increasing load, the coefficient of friction of the plain bearing typically decreases. In this context, shaft materials and the surface finish are also significant. With varying speed like seen for example with oscillating movements, the value needed is the average speed (see formulas to the right).

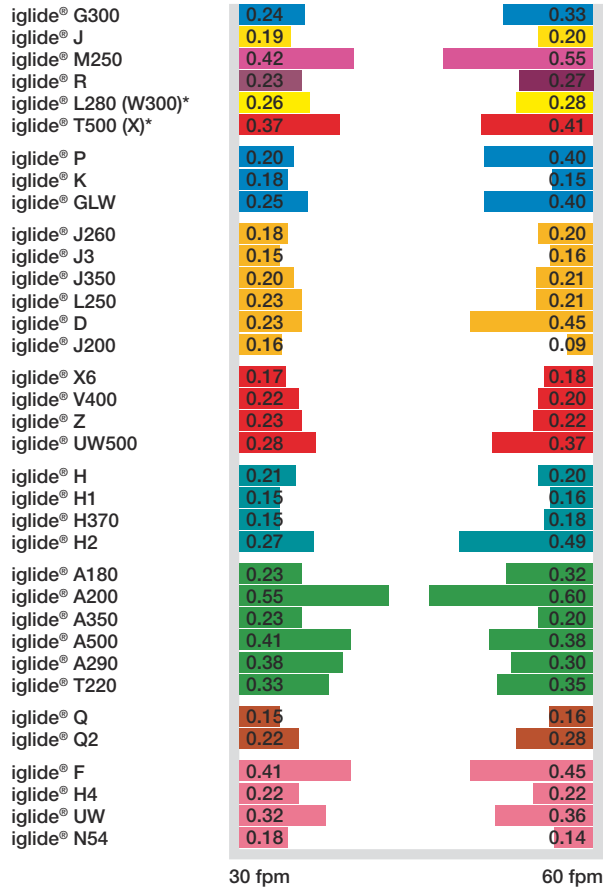


Diagram 08: Coefficients of friction of iglide® materials for different surface speeds (shaft 1050 Steel)

IMPERIAL

Rotational motion $v = \frac{\text{rpm} \times d_1 \times 3.14}{12} = \text{fpm}$

Oscillating motion $v = \frac{2ab}{360} \times \frac{3.14d}{12} = \text{fpm}$

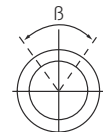
In these equations

a= Angle of motion either side of the mean position in degrees

d1= Shaft diameter in inches, if mm convert to inches prior to calculation

b= Frequency in cycle per minute

d= Inner diameter in inches, if mm convert to inches prior to calculation



METRIC

Rotational motion $v = \frac{n \cdot d_1 \cdot \pi}{60 \cdot 1.000} \left[\frac{m}{s} \right]$

Oscillating motion $v = d_1 \cdot \pi \cdot \frac{2 \cdot \beta}{360} \cdot \frac{f}{1.000} \left[\frac{m}{s} \right]$

In these equations

d1 = shaft diameter [mm]

f = frequency in Hertz

β = angle of motion per cycle [°]

n = rpm

iglide® - Technical Data

Permissible surface speeds

iglide® plain bearings were primarily developed for low to average running speeds in continuous operation.

The table shows the permissible surface speed of iglide® plain bearings for rotating, oscillating, and linear motions.

These surface speeds are limit values assuming minimum pressure loading of the bearing. In practice, these limit values are rarely reached due to an inverse relationship between load and speed. Each increase of the pressure load leads unavoidably to a reduction of the allowable surface speeds and vice versa.

The limit of the speed is measured by the bearing temperature. This is also the reason why different running speeds can occur for the different movement types. For linear movements, more heat can be dissipated via the shaft, since the bearing uses a longer surface area on the shaft.

Surface speed and wear

Considerations about the permissible surface speeds should also include the wear resistance of the plain bearing. High running speeds automatically bring correspondingly high wear rates with them.

Surface speed and coefficient of friction

In practice the coefficient of friction of plain bearings is a result of the surface speed. High surface speeds have a higher coefficient of friction than low surface speeds. Diagram 08 shows this relationship by using the example of a cold rolled steel shaft (1050 steel) with a load of 102 psi.

pv value

For plain bearings, the product is given a new value depending on the specific load (p) and the surface speed (v). The pv value can be considered a measure of the frictional heat and can be used as an analytical tool to answer questions concerning the proper application of a plain bearing. For this purpose, the actual pv value is a function of the shaft material of the ambient temperature and the operating time.

Material	Rotating		Oscillating		Linear	
	Continuous	Short term	Continuous	Short term	Continuous	Short term
BestSellers						
iglide® G300	197	394	138	276	787	984
iglide® J	295	591	217	413	1575	1,969
iglide® M250	157	394	118	276	492	984
iglide® R	157	236	118	197	689	984
iglide® L280 (W300)*	197	492	138	354	787	1,181
iglide® T500 (X)*	295	689	217	492	984	1,969
General purpose						
iglide® P	197	394	138	276	591	787
iglide® K	197	394	138	276	591	787
iglide® GLW	157	197	118	138	492	591
Long service life						
iglide® J260	197	394	138	276	591	787
iglide® J3	295	591	217	413	1,575	1,969
iglide® J350	256	591	197	453	787	1,575
iglide® L250	197	295	138	217	394	591
iglide® D	295	591	217	413	1,575	1,969
iglide® J200	197	295	138	217	1,969	2,953
High temperatures						
iglide® X6	295	689	217	492	1,063	1,969
iglide® V400	177	256	118	177	394	591
iglide® Z	295	689	217	492	984	1,181
iglide® UW500	157	295	118	217	394	591
High media resistance						
iglide® H	197	295	138	217	591	787
iglide® H1	394	492	197	295	984	1,378
iglide® H370	236	295	157	217	787	984
iglide® H2	177	197	118	138	492	591
Applications with food contact						
iglide® A180	157	236	118	197	689	984
iglide® A200	157	295	118	217	394	591
iglide® A350	197	236	157	177	492	591
iglide® A500	118	197	79	138	197	394
iglide® A290	197	394	138	276	591	787
iglide® T220	79	197	59	138	197	394
Applications with high loads						
iglide® Q	197	394	138	276	984	1,181
iglide® Q2	197	394	138	276	787	984
Special application areas						
iglide® F	157	295	118	217	591	984
iglide® H4	197	295	138	217	197	394
iglide® UW	98	295	79	217	394	591
iglide® N54	157	295	118	217	197	394
iglide® Q290	157	394	118	275	197	394

*W300 is the European material equivalent for iglide® L280,
 X is the European equivalent material for iglide® T500

Table 01: Surface speeds of iglide® bearings in ft/s; continuous and short term

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$$pv_{perm.} = \left(\frac{[K1 \cdot \pi \cdot \lambda k \cdot \Delta T]}{\mu \cdot s} + \frac{[K2 \cdot \pi \cdot \lambda s \cdot \Delta T]}{\mu \cdot b1 \cdot 2} \right) \cdot 10^{-3}$$

where

- K1, K2** = constant for heat dissipation
(K1 = 0.5, K2 = 0.042)
- s** = bearing wall thickness [mm]
- b1** = bearing length [mm]
- μ** = coefficient of friction
- λs** = thermal conductivity of the shaft
- λk** = thermal conductivity of the bearing
- ΔT** = (T_a - T_u)
- T_u** = ambient temperature [°F]
- T_a** = max. application temperature [°F]

Material	Thermal conductivity [W/m · k]
Steel	46
Aluminum	204
Grey cast iron	58
303 Stainless	16
Ceramics	1.4
Plastics	0.24

Table 02: Heat conductivity values of shaft or housing materials

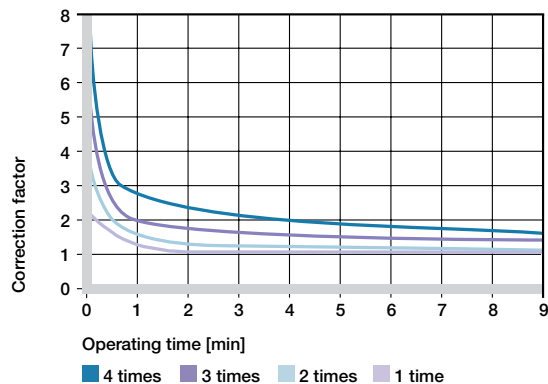


Diagram 09: Correction factor for pv

Type of lubrication	Correction factor
Dry operation	1
During installation	1.3
Continuous, grease	2
Continuous, water	4
Continuous, oil	5

Table 03: Correction of the tolerated pv value by means of lubrication

Correction factor

The tolerated pv value can be increased in intermittent operation if the bearing temperature never reaches the maximum limit because of the short operating time. Tests have shown that this is true for operating times below 10 minutes. An important qualifier here is the ratio of the operating time and pause intervals. It is known that long pauses make a greater contribution to re-cooling. The different curves of Diagram 09 represent different ratios (3x means that the pause lasts three times longer than the operating time).

Lubrication

Although iglide® plain bearings are designed to run dry, they are quite compatible with standard oils and greases. A single lubrication during the installation improves the start-up behavior and the coefficient of friction, reducing the frictional heat. Due to this effect, the permissible loads for plain bearings can be increased by lubrication. For further information, please contact us. Table 03 shows the correction factors for pv value using lubrication

Temperatures

The tables show the maximum ambient temperatures to which the plain bearings can be exposed for a short-term. If these temperatures are realized, the bearings may not be additionally loaded. In fact, a relaxation of the bearings can occur at these temperatures, even without an additional load. Thus it is necessary to ensure that the bearing cannot slide out of the bore. This is achieved by changing the bore construction or additionally securing the bearing.

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Application temperatures

The minimum application temperature is the temperature below which the material is so rigid and hard that it becomes too brittle for standard applications. The maximum continuous application temperature is the temperature which the material can endure without the properties changing considerably. The maximum, short-term application temperature is the temperature above which the material becomes so soft, that it can only withstand small external loads. "Short term" is defined as a period of a few minutes. If the plain bearings are moved axially or axial forces occur, there is more opportunity for the bearing to lose pressfit. In these cases, axial securing of the bearing is necessary in addition to the pressfit. (Table 04)

Temperature and load

The diagrams 02 and 03 (► Page 63) show the maximum recommended surface pressure [p] of the iglide® plain bearings as a function of temperature. With increasing temperature, this value rises continuously.

With plain bearings it is important to note that, due to the friction, the bearing temperature may be higher than the ambient temperature.

Coefficient of thermal expansion

The thermal expansion of plastics is approximately 10 to 20 times higher than metals. In contrast to metal, this expansion is non linear in plastics. The coefficient of thermal expansion of the iglide® plain bearing is a significant reason for the required play in the bearing. At the given application clearance, seizing of the bearing to the shaft does not occur at high temperatures. The coefficient of thermal expansion of iglide® plain bearings was examined for significant temperature ranges with results given in the individual materials tables at the start of each chapter.



Picture 08: Material tests are possible up to +482 °F

*W300 is the European material equivalent for iglide® L280,
X is the European equivalent material for iglide® T500

iglide® G300
iglide® J
iglide® M250
iglide® R
iglide® L280 (W300)*
iglide® T500 (X)*

iglide® P
iglide® K
iglide® GLW
iglide® J260
iglide® J3
iglide® J350
iglide® L250
iglide® D
iglide® J200

iglide® X6
iglide® V400
iglide® Z
iglide® UW500

iglide® H
iglide® H1
iglide® H370
iglide® H2
iglide® A180
iglide® A200
iglide® A350
iglide® A500
iglide® A290
iglide® T220

iglide® F
iglide® H4
iglide® Q
iglide® Q2
iglide® UW
iglide® N54

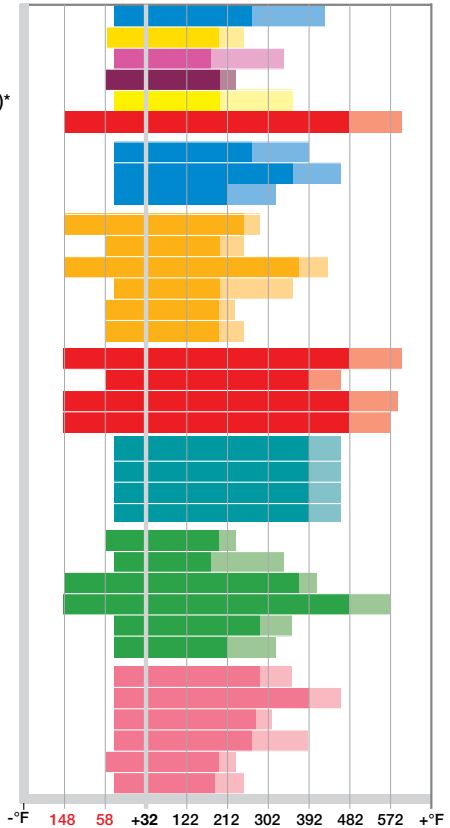


Diagram 10: Comparison of the continuous and short term upper application temperature limits [°F]

Material	Temp. [°F]	Material	Temp. [°F]
iglide® G300	+176	iglide® UW500	+302
iglide® J	+140	iglide® H	+248
iglide® M250	+140	iglide® H1	+176
iglide® R	+122	iglide® H370	+212
iglide® L280 (W300)*	+140	iglide® H2	+230
iglide® T500 (X)*	+275	iglide® A180	+140
iglide® P	+194	iglide® A200	+122
iglide® K	+158	iglide® A350	+284
iglide® GLW	+176	iglide® A500	+266
iglide® J260	+176	iglide® A290	+230
iglide® J3	+140	iglide® T220	+122
iglide® J350	+284	iglide® Q	+122
iglide® L250	+131	iglide® Q2	+158
iglide® D	+122	iglide® F	+221
iglide® J200	+140	iglide® H4	+230
iglide® X6	+329	iglide® UW	+176
iglide® V400	+212	iglide® N54	+140
iglide® Z	+293	iglide® Q290	+176

Table 04: Temperature at which additional securing of the iglide® plain bearing is required

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Coefficient of friction

iglide® plain bearings are self-lubricating by the addition of solid lubricants. The solid lubricants lower the coefficient of friction of the plain bearings increasing the wear resistance. The coefficient of friction $[\mu]$ is proportional to the normal force and describes which force is needed to move a body in relation to another.

Depending on whether an application is starting from a stationary position or the movement is in progress and needs to be maintained, a choice is made between static friction coefficient and the dynamic friction coefficient.

Coefficients of friction and surfaces

At study here is the relationship between coefficients of friction and surface roughness of shaft materials. It is clearly shown that the amount of friction is composed of different factors. If the shaft is too rough, abrasion levels play an important role. Small areas of unevenness that can interlock with each other must be worn off

the surface, however if the surfaces are too smooth, higher adhesion results, allowing the surfaces stick to each other. Higher forces are necessary to overcome the adhesion, which results from an increased coefficient of friction. Stick-slip can be the result of a large difference between static and dynamic friction and of a higher adhesive tendency of mating surfaces. Stick-slip also occurs due to intermittent running behavior and can result in loud squeaking. Stick slip thus represents a cause for malfunction of plain bearings. Over and over again, it is observed that these noises do not occur or can be eliminated with rough shafts. Thus for applications that have a great potential for stick slip – slow movements, large resonance of the housing – attention must be paid to the optimal roughness of the shafts.

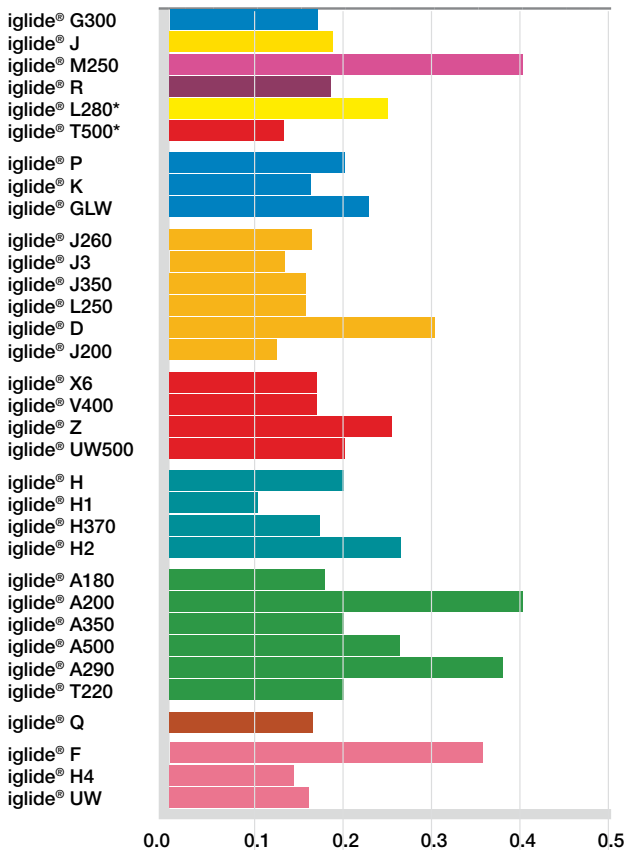


Diagram 11: Coefficients of friction of the iglide® plain bearings at the recommended shaft surface roughness and low load, $p = 109$ psi

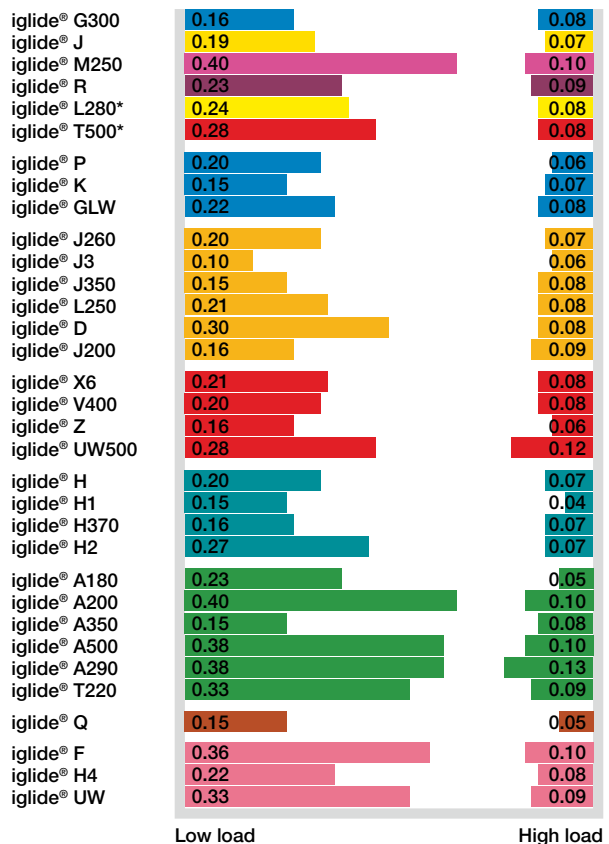


Diagram 12: Frictional values of iglide® materials under different loads

*W300 is the European material equivalent for iglide® L280, X is the European equivalent material for iglide® T500

iglide® - Technical Data

Wear resistance

Due to the fact that the wear of machined parts is a function of so many different influences, it is difficult to make general statements about the wear behavior. Therefore, in numerous experiments, the wear is of primary importance as a measurement parameter. In testing, it has become clear what variances are possible between different material pairings. For given loads and surface speeds, the wear resistance can easily vary by a factor of 10 between materials pairings that run well together.

► Shaft materials, page 71

Wear and pressure

Different loads greatly influence the bearing wear. Among the iglide® plain bearings, certain materials are specialized for low loads. While others are better suited for high or extremely high loads. With a hardened, ground shaft, iglide® J can be characterized as the most wear-resistant bearing material for low loads. iglide® Q, on the other hand, is specialized for extreme loads.

Wear and temperature

Within wide temperature ranges, the wear resistance of the iglide® plain bearings shows little change. In the maximum temperature range, however, the temperature increases and the wear of the plain bearing increases exponentially. Table 05 compares the wear limits.

One particular exception is represented by iglide® T500. The wear resistance of iglide® T500 increases greatly as temperature increases and reaches the optimum wear resistance at a temperature of 320°F. Then resistance decreases again, gradually.

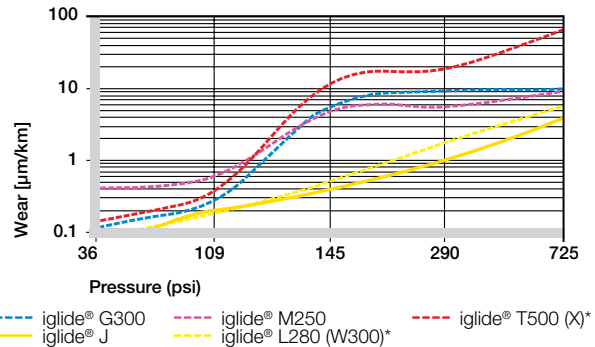


Diagram 13: Wear of iglide® plain bearings under low pressures

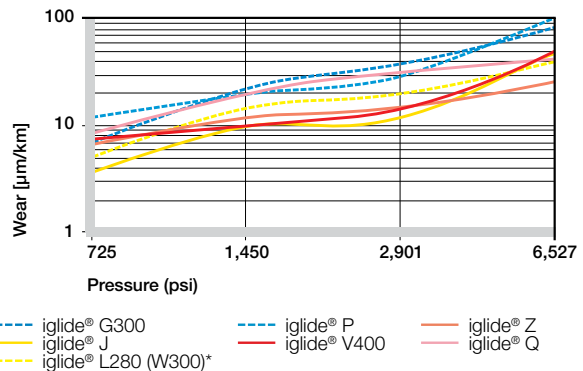


Diagram 14: Wear of iglide® plain bearings, shaft: 1050 steel, v = 19.7 fpm

Material	Wear limit [°F]	Material	Wear limit [°F]
iglide® G300	+248	iglide® H	+248
iglide® J	+158	iglide® H1	+338
iglide® M250	+176	iglide® H370	+302
iglide® R	+158	iglide® H2	+248
iglide® L280 (W300)*	+248	iglide® A180	+158
iglide® T500 (X)*	+410	iglide® A200	+176
iglide® P	+212	iglide® A350	+248
iglide® K	+194	iglide® A500	+374
iglide® GLW	+212	iglide® A290	+248
iglide® J260	+176	iglide® T220	+194
iglide® J3	+158	iglide® Q	+176
iglide® J350	+284	iglide® Q2	+248
iglide® L250	+248	iglide® F	+266
iglide® X6	+410	iglide® H4	+248
iglide® V400	+266	iglide® UW	+158
iglide® Z	+392	iglide® N54	+176
iglide® UW500	+374	iglide® Q290	+158

Table 05: Wear limits of iglide® plain bearings

*W300 is the European material equivalent for iglide® L280, X is the European equivalent material for iglide® T500

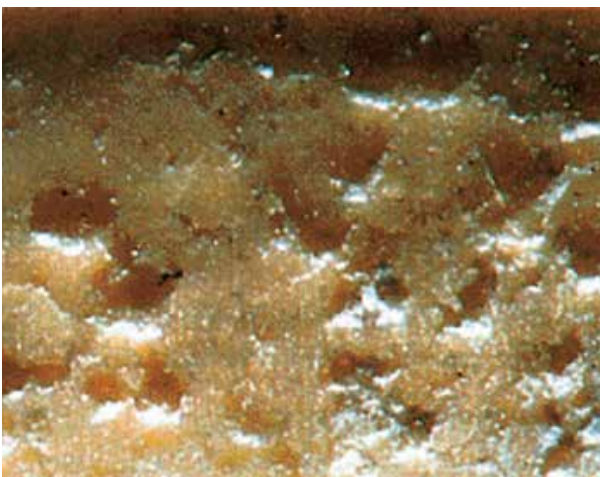
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Picture 09: High wear resistance. Plain bearing in contact with sand



Picture 10: Wear experiments with aluminum shafts



Picture 11: Erosion damage due to shafts that are too smooth

Wear during abrasive dirt accumulation

Special wear problems frequently occur if abrasive dirt particles get into the bearing. iglide® plain bearings can clearly improve the operating time of machines and systems in these situations. The high wear resistance of the materials and the self-lubrication process provide for the highest service lifetime. Because no oil or grease is on the bearing, dirt particles can not penetrate as easily into the bearing. The largest portion simply falls away from the bearing thus limiting potential damage. If however, a hard particle penetrates into the bearing area, then an iglide® plain bearing can absorb this particle. The foreign body becomes embedded in the wall of the bearing. Up to a certain point, operation can be maintained at optimal levels even when there is extreme dirt accumulation.

However, it's not just hard particles that can damage bearings and shafts. Soft dirt particles such as textile or paper fibers, are frequently the cause for increased wear. In this instance, the dry running capability and the dust resistance of the iglide® plain bearings take effect. In the past, they were able to help save costs in numerous applications.

Wear and surfaces

Shaft surfaces are important for the wear of bearing systems. Similar to the considerations for coefficients of friction, a shaft can be too rough in regard to the bearing wear, but it can also be too smooth. A shaft that is too rough acts like a file and during movement separates small particles from the bearing surface. For shafts that are too smooth, however, higher wear can also occur. An extreme increase in friction results due to adhesion. The forces that act on the surfaces of the sliding partner can be so large that regular material blow-outs occur. It is significant to note that wear by erosion is non-linear. Moreover, it is subject to chance and can not be accurately predicted in advance.

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Wear and shaft materials

The shaft is, next to the plain bearing itself, the most important parameter in a bearing system. It is in direct contact with the bearing, and like the bearing, it is affected by relative motion. Fundamentally, the shaft is also worn, however, modern bearing systems are designed so that the wear of the shafts is so small that it can not be detected with traditional methods of measurement technology.

Shafts can be distinguished and classified according to their hardness and according to the surface roughness. The effect of the surface is described on the preceding pages:

- Coefficient of friction, **page 68**
- Wear resistance, **page 69**

The hardness of the shaft also plays an important role. When the shafts are less hard, the shaft is worn smooth during the break-in phase. Abrasive points are worn off and the surface is rebuilt. For some materials, this effect has positive influences, and the wear resistance of the plastic bearing increases.

In the following diagrams, the most common shaft materials are listed and the iglide® materials that are best suited are compared. For easier comparison, the scaling of the wear axis is the same in all diagrams. The small wear results of the systems with hard-chromed shafts are especially impressive. This very hard but smooth shaft gives excellent results on the wear behavior in many bearing pairs. The wear of many iglide® plain bearings is lower on this shaft than on any other shaft material tested. However, it should be pointed out that because of the typically small surface roughness, the danger of stick slip on hard chromed shafts is especially high.



Picture 12: Oscillating wear test rig for testing the wear in oscillating movements at low loads

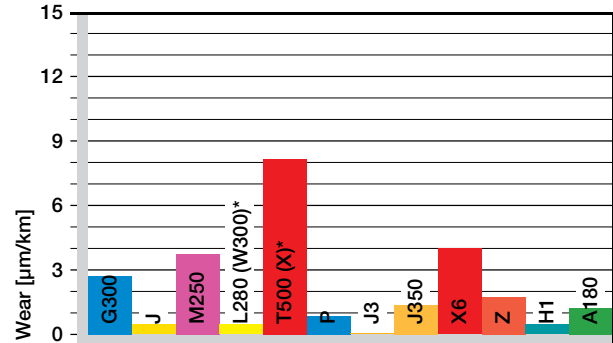


Diagram 15: Wear with 1050 steel shaft,
p = 145 psi, v = 59 fpm, rms = 9

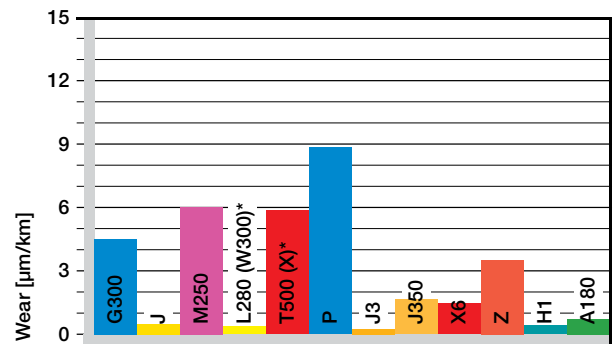


Diagram 16: Wear with 304 stainless shaft,
p = 145 psi, v = 59 fpm, rms = 9

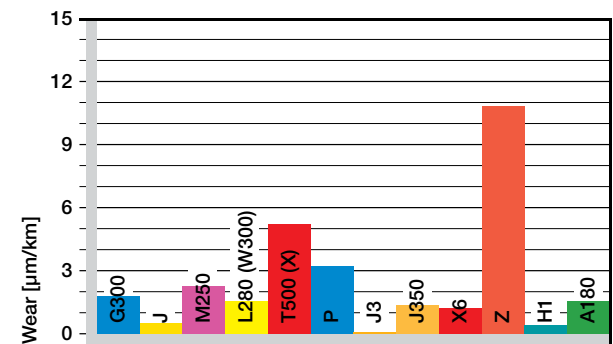


Diagram 17: Wear with machinery steel shaft,
p = 145 psi, v = 59 fpm, rms = 9

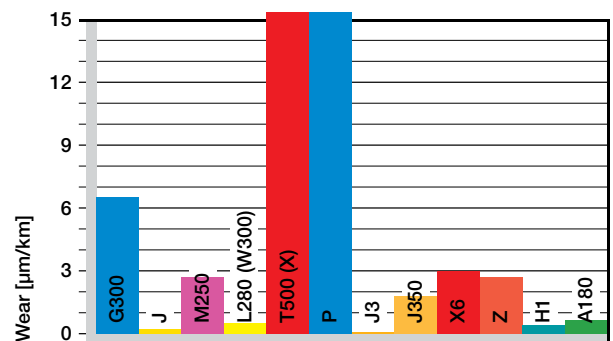


Diagram 18: Wear with hard chromed 1050 shaft,
p = 145 psi, v = 59 fpm, rms = 9

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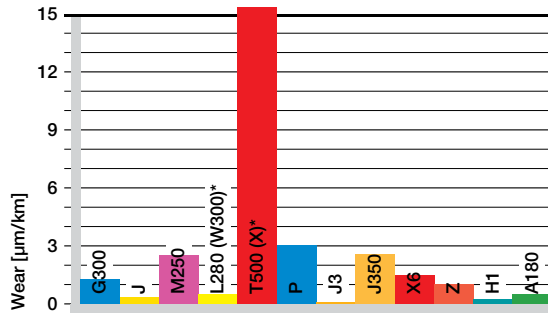


Diagram 19: Wear with hard chromed aluminum shaft,
p = 145 psi, v = 59 fpm, rms = 9

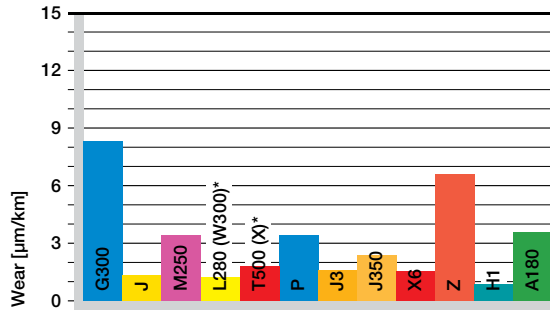


Diagram 20: Wear with a machinery steel shaft,
p = 145 psi, v = 59 fpm, rms = 9

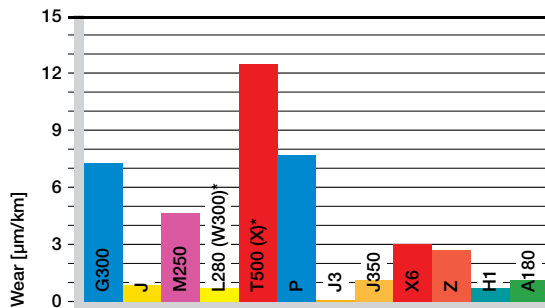


Diagram 21: Wear with 440 stainless steel shaft,
p = 145 psi, v = 59 fpm, rms = 9

With high-grade stainless steel (440B), a similarly good result is obtained. Case-hardened steel shafts (1050, chromed) give very good results, too. With other shaft materials, the wear results vary considerably. For example, in tests with soft stainless steel (304) at low load, good to very good results can be found with the right bearing material. It must be said on the other side, that no other shaft material shows a bigger variation of wear results with different bearing materials. The test results give only a sample of the existing data. All of the results shown were made with same loads and speeds.



Picture 13: Oscillating wear test rig for testing the wear in oscillating movements at medium loads

iglide® - Installation

Chemical resistance

iglide® plain bearings can come into contact with many chemicals during their use. This contact can lead to changes of the structural properties. The behavior of plastics toward a certain chemical is dependent on the temperature, the length of exposure, and the type and amount of the mechanical loading. If iglide® plain bearings are resistant against a chemical, they can be used in these media. Sometimes, the surrounding media can even take on the role of a lubricant.

With the most resistant iglide® material, the iglide® T500, the medium can even be hydrochloric acid. All iglide® plain bearings can be used in greatly diluted acids and diluted lyes. Differences can result at higher concentrations or higher temperatures.

For all iglide® plain bearings, their resistance against traditional lubricants applies in the same way. Therefore plain bearings may also be used lubricated. However, in dirty environments, a traditional lubricant can decrease the wear resistance when compared to running dry.

The following overview should quickly assist you:

If it is not completely clear in a design application which of the different chemicals can occur or in which concentration, plain bearings made out of iglide® T500 should be used. They have the best resistance and are only attacked by a few concentrated acids. You'll find a detailed list of chemical resistances in the rear of the catalog

► Table of chemicals, **page 1364**

Applications in the food industry

For the special requirements made of machines and systems for producing food and pharmaceuticals, the iglide® product line offers six specially developed bearing materials. iglide® A180, A200, A350 and A500, A290 and T220 are all FDA compliant materials.

For all other iglide® plain bearings, direct contact with food should be avoided.

*W300 is the European material equivalent for iglide® L280,
 X is the European equivalent material for iglide® T500

Material	Hydro-carbon	Greases, oils without additives	Weak acids	Weak alkaline
Standards				
iglide® G300	+	+	0 to –	+
iglide® J	+	+	0 to –	+
iglide® M250	+	+	0 to –	+
iglide® R	+	+	0 to –	+
iglide® L280 (W300)*	+	+	0 to –	+
iglide® T500 (X)*	+	+	+	+
General purpose				
iglide® P	–	+	0	–
iglide® K	+	+	0 to –	+
iglide® GLW	+	+	0 to –	+
Long service life				
iglide® J260	+	0 to –	–	+ to 0
iglide® J3	+	+	0 to –	+
iglide® J350	+ to 0	+	+	+
iglide® L250	+	+	0 to –	+
iglide® D	+	+	0 to –	+
iglide® J200	+	+	0 to –	+
High temperatures				
iglide® X6	+	+	+	+
iglide® V400	+	+	+	+
iglide® Z	+	+	+	+
iglide® UW500	+	+	+	+
High media resistance				
iglide® H	+	+	+ to 0	+
iglide® H1	+	+	+ to 0	+
iglide® H370	+	+	0 to +	+
iglide® H2	+	+	+ to 0	+
Applications with food contact				
iglide® A180	+	+	0 to –	+
iglide® A200	+	+	0 to –	+
iglide® A350	+ to 0	+	+	+
iglide® A500	+	+	+	+
iglide® A290	+	+	0 to –	+
iglide® T220	–	+	0	–
Applications with high loads				
iglide® Q	+	+	0 to –	+
iglide® Q2	+	+	0 to –	+
Special application areas				
iglide® F	+	+	0 to –	+
iglide® H4	+	+	+ to 0	+
iglide® UW	+	+	0 to –	+
iglide® N54	+	+	0 to +	+
iglide® Q290	+	+	0 to –	+

+ resistant 0 conditionally resistant – not resistant

All data given concerns the chemical resistance at room temperature [+68°F]

Table 06: Chemical resistance of iglide®

iglide® - Technical Data

Material	Radiation resistance
iglide® T500 (X)*, Z, UW500, A160	1 · 10 ⁵ Gy
iglide® X6, A500	2 · 10 ⁵ Gy
iglide® M250, J3, A200, N54	1 · 10 ⁴ Gy
iglide® L250	3 · 10 ⁴ Gy
iglide® V400	2 · 10 ⁴ Gy
iglide® P, K	5 · 10 ² Gy
iglide® G300, J, L280 (W300)*, P210, J260, J200, R, D, C500, A180, A290, UW160, T220, F, F2, Q, Q2, UW, G V0, J2, GLW	3 · 10 ² Gy
iglide® J350, H, H1, H370, H2, H4, A181, A350, W360, TX1, Q290	2 · 10 ² Gy

Table 07: Radiation resistance of iglide® plain bearings

Material	UV resistance	Material	UV resistance
iglide® G300	+++++	iglide® H	++
iglide® J	+++	iglide® H1	++
iglide® M250	++++	iglide® H370	+++++
iglide® R	++++	iglide® H2	+
iglide® L280 (W300)*	+++	iglide® A180	+++
iglide® T500 (X)*	+++++	iglide® A200	++++
iglide® P	+++++	iglide® A350	++++
iglide® K	++++	iglide® A500	+++
iglide® GLW	+++++	iglide® A290	++++
iglide® J260	+	iglide® T220	++
iglide® J3	+++	iglide® Q	++
iglide® J350	++	iglide® Q2	+++++
iglide® L250	+++	iglide® F	+++++
iglide® X6	+++++	iglide® H4	+
iglide® V400	+++	iglide® UW	+++
iglide® Z	+++	iglide® N54	++++
iglide® UW500	+++++		

Table 08: UV resistance of iglide® plain bearings

+ low resistance +++++ high resistance

Material	Surface resistance [Ω]
iglide® T500 (X)*	< 10 ³
iglide® X6	< 10 ⁵
iglide® UW500	< 10 ⁹
iglide® H	< 10 ²
iglide® H370	< 10 ⁵
iglide® F	< 10 ²
iglide® UW	< 10 ⁵

Table 09: Electrical properties of conductive iglide® plain bearings

Radioactive radiation

A comparison of the resistance to radioactive radiation is shown in table 07. By a wide margin iglide® T500 (X)*, UW500, A500 and Z are the most resistant materials.

UV resistance

Plain bearings can be exposed to constant weathering when used outside. The UV resistance is an important measurement and indicates whether a material is attacked by UV radiation. The effects can extend from slight changes in color to brittleness of the material. A comparison of the materials to each other is shown in the Table 08. The results show that iglide® plain bearings are suitable for outside use. Only for a few iglide® materials are any material changes expected.

Vacuum

iglide® plain bearings can be used in a vacuum to a limited extent. Only a small amount of outgassing takes place. For most iglide® plain bearings, the outgassing does not change the material properties.

Electrical properties

In the product line of the maintenance-free, self-lubricating iglide® plain bearings, there are both insulating as well as electrically conductive materials. The most important electrical properties are given in detail in the individual material descriptions. The adjacent table compares the most important electrical properties of iglide® plain bearings.

The iglide® plain bearings not mentioned here are electrically insulating. Please observe that for some materials the properties can be changed by the material's absorption of moisture. In experiments, it should be tested whether the desired properties are also stable when the conditions are changing.

iglide® - Tolerances and the measurement system

Tolerances and measurement system

The installation dimensions and tolerances of the iglide® plain bearings are a function of the material and wall thicknesses. For each material, the moisture absorption and the thermal expansion are imperative. Plain bearings with low moisture absorption can be designed with a minimal amount of tolerance. For wall thickness, the rule is: The thicker the bearings are, the larger the tolerances must be. Thus, different tolerance classes exist for iglide® plain bearings: Within these tolerances, iglide® plain bearings can operate in the permissible temperature range and in humidity conditions up to 70% according to the installation recommendations. Should higher air moisture levels be present, or the bearing is used under water, we can provide advice with regard to applications, in order to help you use your bearings correctly.



Picture 14: Measurement of the inner diameter of a pressfit plain bearings

Dimensions in Microns [1000ths of a mm]

Dimensions	mm	1 / =3		>3 / =6		>6 / = 10		> 10 / = 18		> 18 / = 30		> 30 / = 50		> 50 / = 80	
H 7	mm	+0	+10	+0	+12	+0	+15	+0	+18	+0	+21	+0	+25	+0	+30
E 10	mm	+14	+54	+20	+68	+25	+83	+32	+102	+40	+124	+50	+150	+60	+180
F 10	mm	+6	+46	+10	+58	+13	+71	+16	+86	+20	+104	+25	+125	+30	+150
D 11	mm	+20	+80	+30	+105	+40	+130	+50	+160	+65	+195	+80	+240	+100	+290
f 6	mm	-6	-12	-10	-18	-13	-22	-16	-27	-20	-33	-25	-41	-30	-49
d 13	mm	-20	-160	-30	-210	-40	-260	-50	-320	-65	-395	-80	-470	-100	-560
h 6	mm	-0	-6	-0	-8	-0	-9	-0	-11	-0	-13	-0	-16	-0	-19
h 7	mm	-0	-10	-0	-12	-0	-15	-0	-18	-0	-21	-0	-25	-0	-30
h 9	mm	-0	-25	-0	-30	-0	-36	-0	-43	-0	-52	-0	-62	-0	-74
h 13	mm	-0	-140	-0	-180	-0	-220	-0	-270	-0	-330	-0	-390	-0	-460

Dimensions in inches

Dimensions	inch	0.0393"/=1.181"		>0.1181"/=0.23622"		>0.2362"/=0.3937"		>0.3937"/=1.008"	
H 7	inch	+0.0000	+0.0004	+0.0000	+0.0005	+0.0000	+0.0006	+0.0000	+0.0007
E 10	inch	+0.0006	+0.0021	+0.0008	+0.0027	+0.0010	+0.0033	+0.0013	+0.0040
F 10	inch	+0.0002	+0.0018	+0.0004	+0.0023	+0.0005	+0.0028	+0.0006	+0.0034
D 11	inch	+0.0008	+0.0031	+0.0012	+0.0041	+0.0016	+0.0051	+0.0020	+0.0063
f 6	inch	-0.0002	-0.0005	-0.0004	-0.0007	-0.0005	-0.0009	-0.0006	-0.0011
d 13	inch	-0.0008	-0.0063	-0.0012	-0.0083	-0.0016	-0.0102	-0.0020	-0.0126
h 6	inch	-0.0000	-0.0002	-0.0000	-0.0003	-0.0000	-0.0004	-0.0000	-0.0004
h 7	inch	-0.0000	-0.0004	-0.0000	-0.0005	-0.0000	-0.0006	-0.0000	-0.0007
h 9	inch	-0.0000	-0.0010	-0.0000	-0.0012	-0.0000	-0.0014	-0.0000	-0.0017
h 13	inch	-0.0000	-0.0055	-0.0000	-0.0071	-0.0000	-0.0087	-0.0000	-0.0106

Dimensions	inch	> 0.7086"/=1.8111"		>1.1811"/=1.9685"		>1.9685"/=3.1496"	
H 7	inch	+0.0000	+0.0008	+0.0000	+0.0010	+0.0000	+0.0012
E 10	inch	+0.0016	+0.0049	+0.0020	+0.0059	+0.0024	+0.0071
F 10	inch	+0.0008	+0.0041	+0.0010	+0.0049	+0.0012	+0.0059
D 11	inch	+0.0026	+0.0077	+0.0031	+0.0094	+0.0000	+0.0000
f 6	inch	-0.0008	-0.0013	-0.0010	-0.0016	-0.0012	-0.0019
d 13	inch	-0.0026	-0.0156	-0.0031	-0.0185	0.0000	0.0000
h 6	inch	-0.0000	-0.0005	-0.0000	-0.0006	-0.0000	-0.0007
h 7	inch	-0.0000	-0.0008	-0.0000	-0.0010	-0.0000	-0.0012
h 9	inch	-0.0000	-0.0020	-0.0000	-0.0024	-0.0000	-0.0029
h 13	inch	-0.0000	-0.0130	-0.0000	-0.0154	-0.0000	-0.0181

iglide® - Installation

Testing methods

iglide® plain bearings are pressfit bearings for bores machined to our recommendations. This pressfitting of the bearing fixes the bearing in the housing, and the inner diameter of the plain bearing is also formed upon pressfit. The bearing test is performed when the bearing is installed in a bore with the minimum specified dimension; both using an 3 point probe and a Go No-Go gauge.

- The "Go-Side" of the Go-No-Go gauge, pressed into the bore, must pass easily through the bearing
- With the 3 point probe, the inner diameter of the bearing must lie within the prescribed tolerance on the measurement plane (diagram 22).

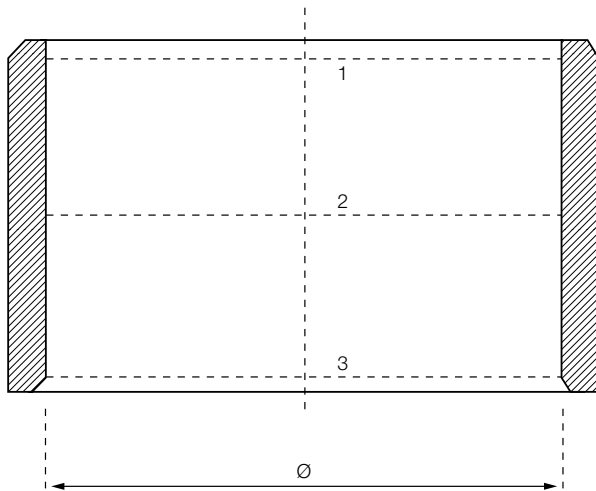


Diagram 22: Positions of the measurement planes



Picture 14: Measurement of the inner diameter of a pressfit plain bearings

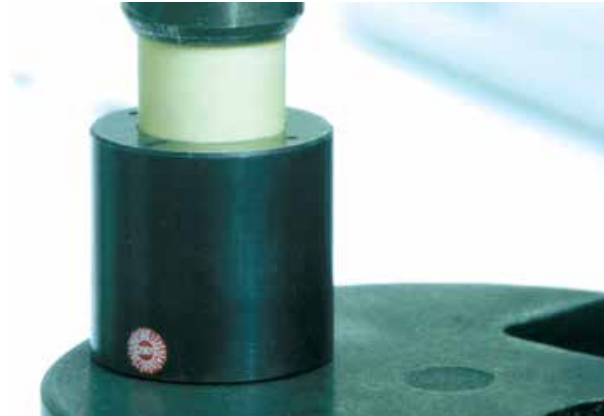
Troubleshooting

In spite of careful manufacturing and assembly of the bearings, variances and questions regarding the recommended installation dimensions and tolerances can result.

For this reason, we have compiled a list of the most frequent reasons for variance. In many cases, with this troubleshooter, the reasons for the variances can be found quickly.

Symptom	Action/Solution
Bearing is oversized before pressfit	Check dimensions only after pressfit
Removal of material when pressed into housing	Add chamfer to housing bore, check bore size
Bearing is over/under sized after pressfit	Check housing bore dimension, check housing bore material softer bore materials (plastic, aluminum) can expand upon pressfit
Operating Clearances are too large/small	Check ID of bearing after press, housing bore, shaft diameter
Bearing noise/squeak	Check shaft surface finish/ Possibly roughen shaft
Bearing wears, material deposits on shaft	Operating clearance may be too small/ Increase clearance
Chattering noise	Operating clearance too large, excessive speed/Reduce speed and operating clearance
Shaft wear	Shaft material too soft/ Change shaft material or hardness, switch to alternative iglide material
Bearing seizes on shaft	Operating clearances too small, temperature or moisture may be causing material expansion
Loss of pressfit	Bearings overheated/ Axial secure bearing into housing or select alternative material grade

iglide® - Installation



Picture 15: The bearing should be pressfit using a flat press

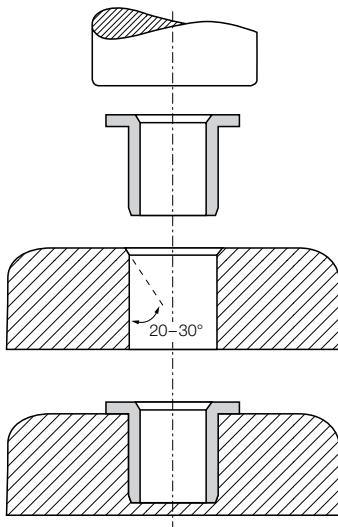


Diagram 23: Pressfit of the bearing (section view)

Process	Turning	Boring	Milling
Tool material	SS	SS	SS
Feed [mm]	0.1...0.5	0.1...0.5	to 0.5
Tool relief angle	5...15	10...12	3
Tool rake angle	0...10	3...5	
Cutting speed [m/min]	200...500	50...100	to 1,000

Table 10: Guidelines for machining



Picture 16: igus® pressfit tool

Installation

iglide® plain bearings are oversized before press-fit. The inner diameter adjusts only after being pressfit in the proper housing bore with the recommended tolerances listed in the catalog. Axial or radial shifts in the housing are also prevented.

Provided the recommended housing bore tolerances are met (as listed next to each part number), the ID after press-fit as indicated will be met. We recommend a metal housing bore preferably steel, with a smooth ID and lead-in chamfer

The installation is done using an arbor press. The use of centering or calibrating pins can cause damage to the bearing and create a larger amount of clearance.

Adhesion

Using an adhesive to fit an iglide® bearing is not usually necessary. If the pressfit of the bearing could be lost because of high temperatures, the use of a plain bearing with a higher temperature resistance is recommended. If however, the securing of the bearing by adhesives is planned, individual tests are necessary in each case. The transfer of successful results to other application cases is not possible.

Machining

iglide® plain bearings are delivered ready to fit. The extensive product line makes it possible to use a standard dimension in most cases. If for some reason, a subsequent machining of the plain bearing is necessary, Table 10 shows the machining standard values. The subsequent machining of the running surfaces is to be avoided if possible. Higher wear rate is most often the result. An exception is the iglide® M250 which is very suitable for secondary machining. With other iglide® plain bearings, disadvantages of a sliding surface machining can be counteracted by lubrication during installation. Please also remember that igus® manufactures a range of bar stock materials designed for machining.

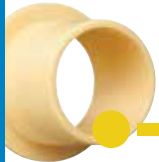
Press-fitting plain bearings made easy

iglide® plain bearings are pressfit bearings, which are dimensionally oversized and pressed into a housing with H7 tolerance. This is not always done in an assembly line using suitable tools. The new igus® assembly aid flexibly and reliably accepts plain bearings for shaft diameters from 13–50 mm (PT-1350) and 6–20 mm (PT-0620) and even permits assembly using a hammer – simple and fast.

iglide® Best Sellers - Advantages



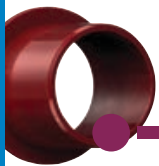
General purpose standard:
The best selling iglide® bearing worldwide –
iglide® G300
➤ Page 83



Fast and slow motion standard:
Low friction, low wear –
iglide® J
➤ Page 115



Thick and tough standard:
Excellent vibration dampening –
iglide® M250
➤ Page 135



Economic standard:
Low-cost –
iglide® R
➤ Page 159



Long running standard:
Low wear on all shafts –
iglide® L280 (W300)*
➤ Page 171



High tech problem solver standard:
High temperature and chemical resistance –
iglide® T500 (X)*
➤ Page 193


Wide standard bearing materials range from stock


These 6 best-selling bearing material options can be used for nearly any application. The self-lubricating best-sellers are used in a massive range of applications, from those with extreme dirt accumulation (iglide® M250) to applications that must withstand chemical contact and temperatures up to 482°F (iglide® T500).

The overall best-seller, iglide® G300, is a cut above the rest in almost all disciplines. In total, more than 2,000 sizes are available from stock, ready to ship as early as same day.

- Self-lubricating and maintenance-free
- Lightweight
- Good price/performance ratio
- Predictable service life


 **Online product finder**
➤ www.igus.com/iglide-finder

 max. +482 °F
min. -148 °F

 **6 materials**



 **Ø 1/8 to 3 inches**
more dimensions on request

 **Ø 1 to 150 mm**
more dimensions on request

*W300 is the European material equivalent for iglide® L280, X is the European equivalent material for iglide® T500

iglide® Best Sellers - Application Examples

Standard bearing materials, wide range from stock



Using a specially designed bearing on this centrifugal arm significantly reduced manufacturing costs, while offering maintenance-free operation and high wear resistance.



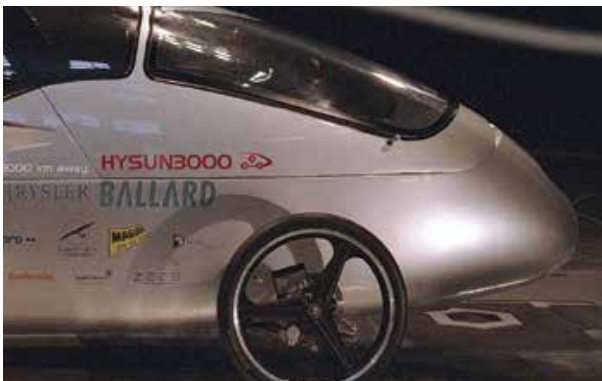
iglide® G300 is typically recommended when an economical bearing is required to handle extremely high loads under low to medium surface speeds.



With long service lives, no need for external lubrication, and low cost compared to conventional bearings, iglide® may offer up to 90% cost savings.



In this application, eight different iglide® plain bearings are fit in the pump, producing various pivoting and linear motions in a durable, cost-effective manner.



The iglide® plastic bearings reduce the overall weight and enhance the mechanical properties of this high speed vehicle.



Temperatures of more than 212° F was no problem for iglide® T500 plastic plain bearings.

iglide® Bearings - Selection Guide - Main Properties

Standard bearing materials, wide range from stock



Standard
catalog
range



Bar
stock



speedigus®
material



Long life
in dry
operation



For high
loads



Dirt
resistant



Low
coefficient
of friction



Chemical
resistant

	Standard catalog range	Bar stock	speedigus® material	Long life in dry operation	For high loads	Dirt resistant	Low coefficient of friction	Chemical resistant
iglide® G300	●		●	●	●	●		
iglide® J	●	●	●	●			●	
iglide® M250	●	●	●	●		●		
iglide® R	●	●		●			●	
iglide® L280	●	●	●	●		●	●	
iglide® T500	●	●	●	●	●			●



Low water
absorption



For under
water use



Edge
pressure



Vibrations
dampening



Food
suitable



Temperatures
up to
+194°F



Temperatures
up to
+302°F

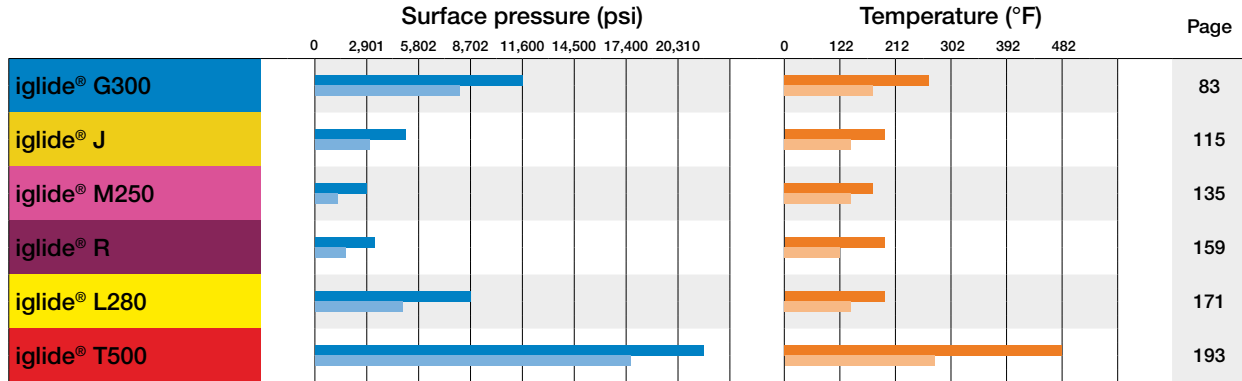


Economic

	Low water absorption	For under water use	Edge pressure	Vibrations dampening	Food suitable	Temperatures up to +194°F	Temperatures up to +302°F	Economic
iglide® G300						●		●
iglide® J	●		●			●		●
iglide® M250			●	●				●
iglide® R	●		●			●		●
iglide® L280			●			●		
iglide® T500	●	●				●	●	

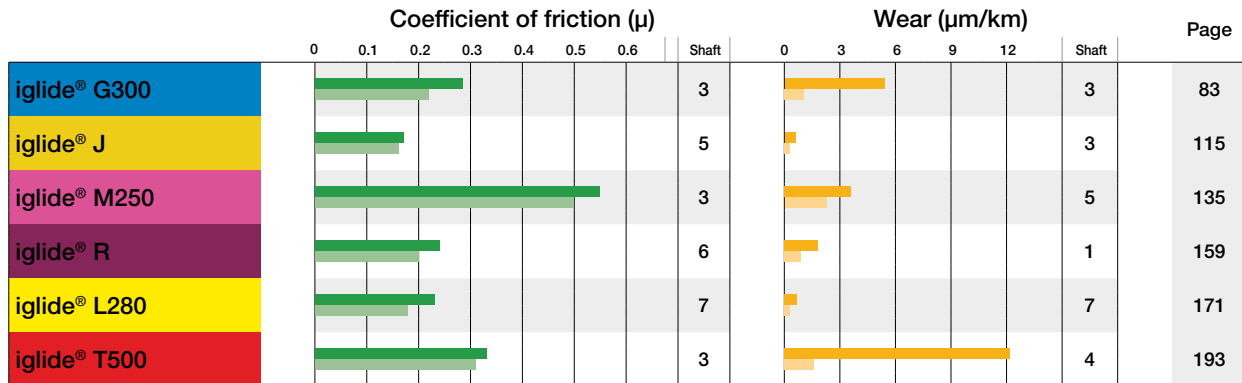
iglide® Bearings - Selection Guide - Main Properties

Standard bearing materials, wide range from stock



Maximum permissible surface pressure of iglide® bearings at
■ +68 °F
■ +176 °F

Important temperature limits of iglide® bearings
■ Maximum permissible application temperature, continuous
■ Temperature where bearings need to be secured against radial or axial movement in the housing



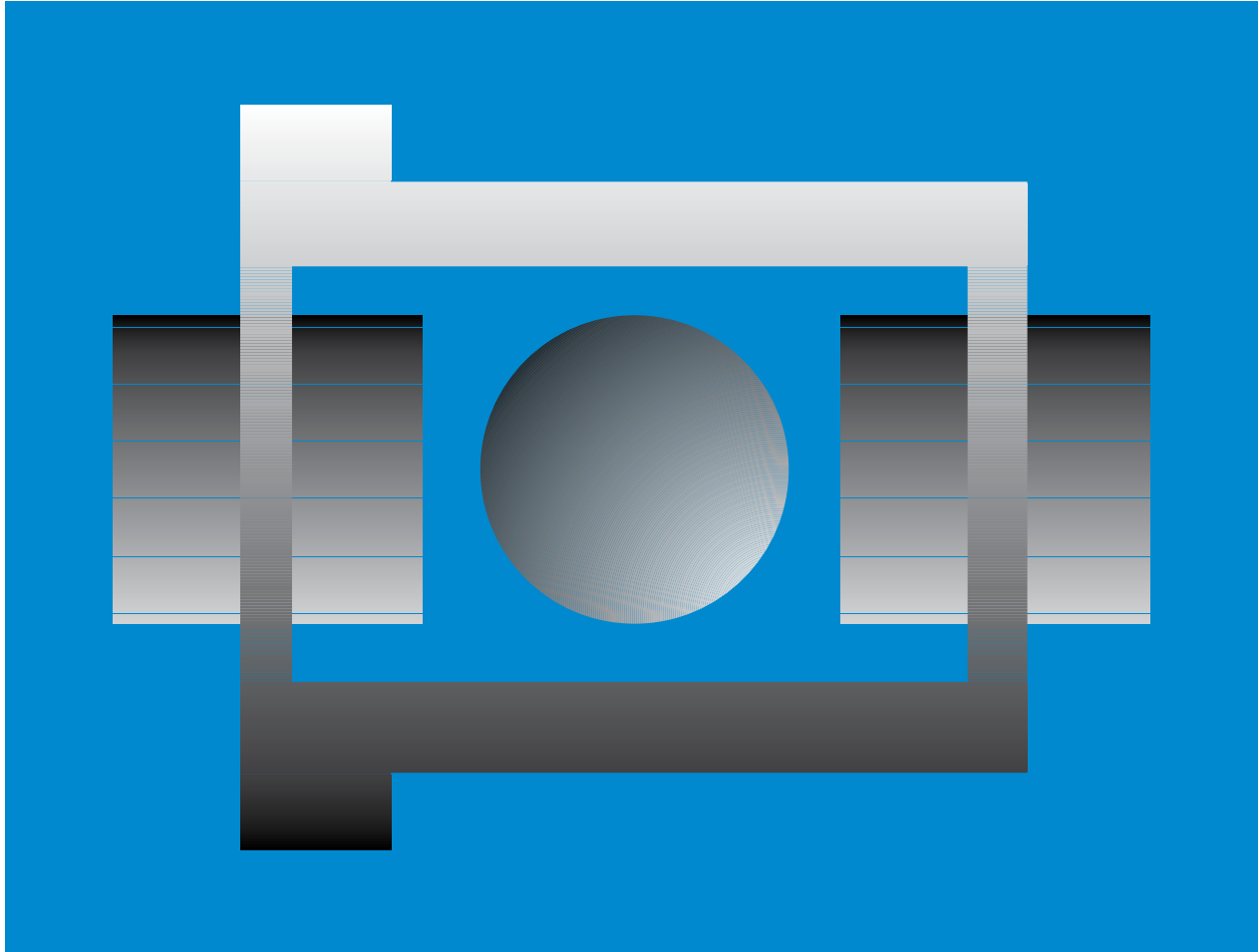
Coefficients of friction of iglide® bearings against steel rotating, p = 145 psi v = 59 fpm
■ Average of all the seven sliding combinations tested
■ Coefficient of friction of best combination

Wear of iglide® bearings against steel rotating, p = 145 psi
■ Average of all the seven sliding combinations tested
■ Wear of best combination



Shaft material:

1 = 1050, case hardened	4 = Free-cutting steel	7 = 440B Stainless
2 = 1050, case hardened steel, chromed	5 = Machinery Steel	
3 = Hard anodized aluminum	6 = 304 Stainless	



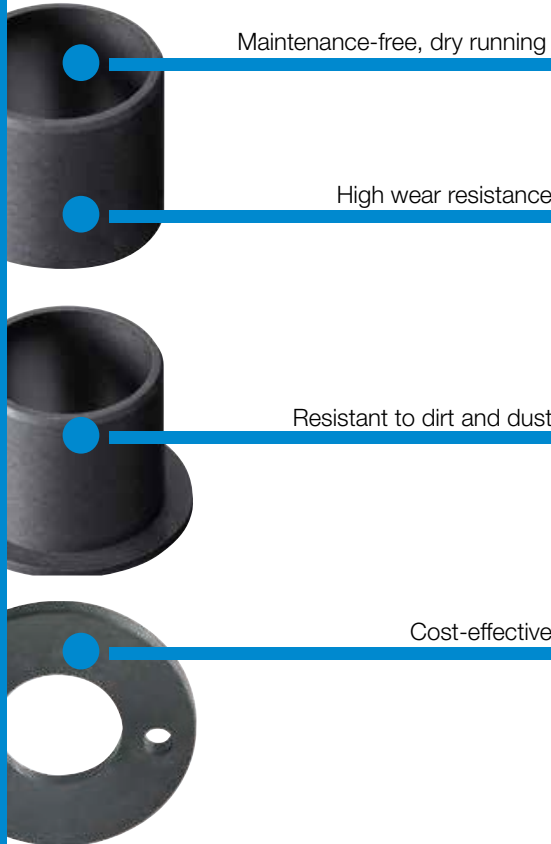
iglide® G300

- Over 650 sizes available from stock
- High wear resistance
- Resistance to dust and dirt
- Economic
- Self-lubricating and maintenance free

iglide®
G300

iglide® G300 - General Purpose

Most popular iglide® material worldwide



Maintenance-free, dry running

High wear resistance

Resistant to dirt and dust

Cost-effective

iglide® G300 bearings cover an extremely wide range of different requirements. Typical applications include medium to high loads, medium sliding speeds and medium temperatures. Typical applications include medium to high loads, medium sliding speeds and medium temperatures.



- When you need an economical all-around performance bearing
- For low to average surface speeds
- When the bearing needs to run on different shaft materials
- For oscillating and rotating movements



- When mechanical reaming of the wall surface is necessary
 - iglide® M250
- When the highest wear resistance is necessary
 - iglide® L280
- When universal chemical resistance is required
 - iglide® T500
- If temperatures are constantly greater than +266°F
 - iglide® T500, H, H370
- For underwater use
 - iglide® H370



Available from stock

Detailed information about delivery time online.



max. +266°F
min. -40°F



Price breaks online

No minimum order.



Ø 1/8 to 3 inches
more dimensions on request



Typical application areas

- Agricultural machines
- Machine building
- Sports and leisure
- Automotive
- Mechatronics
- Construction machinery



Ø 1.5 to 150 mm
more dimensions on request



iglide® G300 - Technical Data

 iglide®
G300

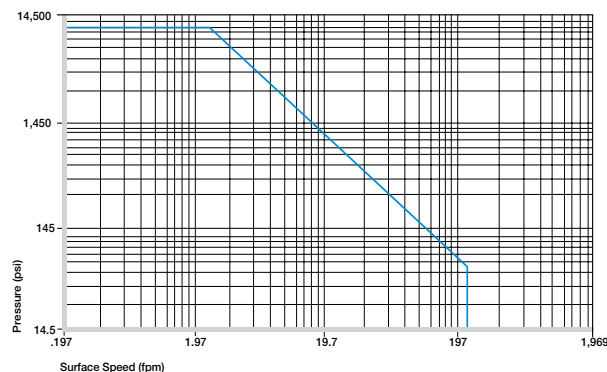
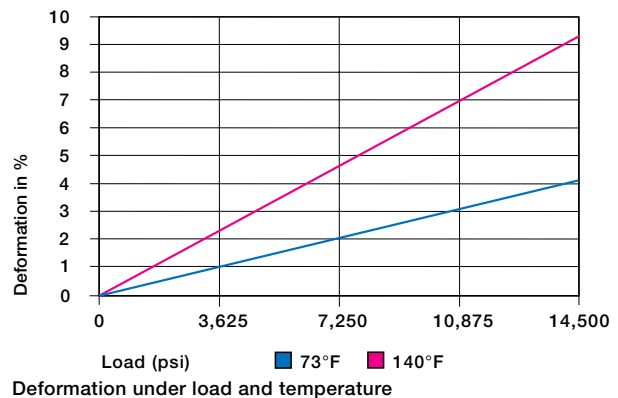
Material Properties Table

General Properties	Unit	iglide® G300	Testing Method
Density	g/cm ³	1.46	
Color		dark gray	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.7	DIN 53495
Max. moisture absorption	% weight	4.0	
Coefficient of friction, dynamic against steel	μ	0.08 - 0.15	
pv value, max. (dry)	psi x fpm	12,000	
Mechanical Properties			
Modulus of elasticity	psi	1,131,000	DIN 53457
Tensile strength at 68°F	psi	30,460	DIN 53452
Compressive strength	psi	11,310	
Permissible static surface pressure (68°F)	psi	11,600	
Shore D-hardness		81	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	266	
Max. application temperature, short-term	°F	428	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	9	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹³	DIN IEC 93
Surface resistance	Ω	> 10 ¹¹	DIN 53482

Compressive Strength

The graph shows the elastic deformation of iglide® G300 during radial loading. At the maximum permissible load of 11,600 psi, the deformation is less than 5%. The plastic deformation is minimal up to a pressure of approximately 14,500 psi. However, it is also a result of the cycle time.

► Compressive Strength, Page 63



Permissible pv value for iglide® G300 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® G300 has been developed for low to medium surface speeds. The maximum values shown in the table can only be achieved at low pressure loads. At the given speeds, friction can cause a temperature increase to maximum permissible levels. In practice, though, this temperature level is rarely reached, due to varying application conditions.

- Surface speed, Page 64
- pv Value, Page 65

	Continuous fpm	Short Term fpm
Rotating	196	393
Oscillating	137	275
Linear	787	984

Maximum surface speeds

Temperatures

Application temperatures affect the properties of plain bearings greatly. The short-term maximum temperature is 428°F, this allows the use of iglide® G300 plain bearings in heat treating applications in which the bearings are not subjected to additional loading.

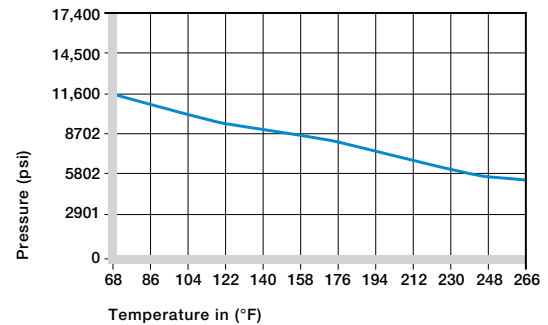
With increasing temperatures, the compressive strength of iglide® G300 plain bearings decreases. The graph shows this inverse relationship. However, at the long-term maximum temperature of 266°F, the permissible surface pressure is still above 5,802 psi.

The ambient temperatures that are prevalent in applications also has an effect on the bearing wear. With increasing temperatures, the wear increases and this effect is notable starting at the temperature of 248°F.

► Application temperatures, Page 67

iglide® G300	Application Temperature
Minimum	- 40°F
Max. long-term	+266°F
Max. short-term	+428°F
Additional axial securing	+176°F

Temperature limits for iglide® G300



Recommended maximum permissible static surface pressure of iglide® G300 as a result of temperature

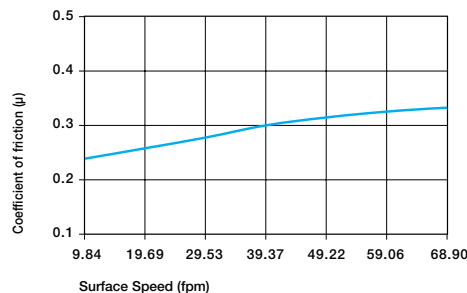
Friction and Wear

Similar to wear resistance, the coefficient of friction μ also changes with the load. The coefficient of friction decreases with increasing loads, whereas an increase in surface speed causes an increase of the coefficient of friction. This relationship explains the excellent results of iglide® G300 plain bearings for high loads and low speeds.

The friction and wear are also dependent, to a large degree, on the shaft partner. Shafts that are too smooth, increase both the coefficient of friction and the wear of the bearing. For iglide® G300, a ground surface with an average roughness $R_a = 32$ rms is recommended.

► Coefficients of friction and surfaces, Page 68

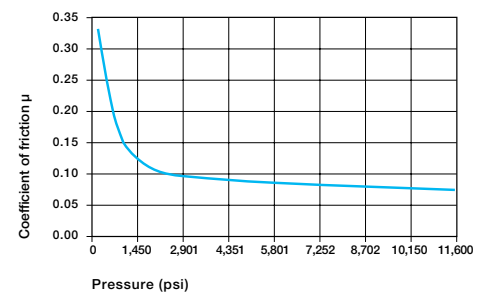
► Wear Resistance, Page 69



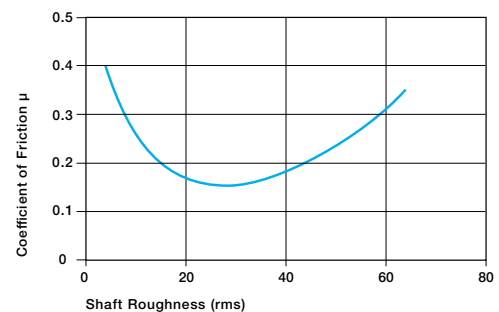
Coefficient of friction of iglide® G300 as a result of the running speed; p = 108 psi

iglide® G300	Coefficient of Friction
Dry	0.08 - 0.15
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction for iglide® G300 against steel
(Shaft finish = 40 rms, 50 HRC)



Coefficient of friction of iglide® G300 as a result of the load, v = 1.96 fpm



Coefficient of friction as result of the shaft surface
(Shaft - 1050 hard chromed)

iglide® G300 - Technical Data

iglide®
G300

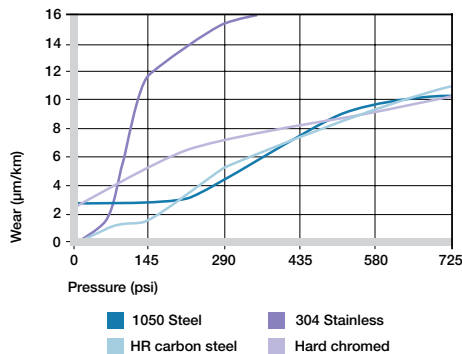
Shaft Materials

The graphs show results of testing different shaft materials with plain bearings made of iglide® G300. In the graph below it is observed that iglide® G300 can be combined with various shaft materials. The simple shaft materials of free-cutting steel and HR Carbon Steel have proven best at low loads. This helps to design cost-effective systems, since both iglide® G300 and the sliding partner are economically priced.

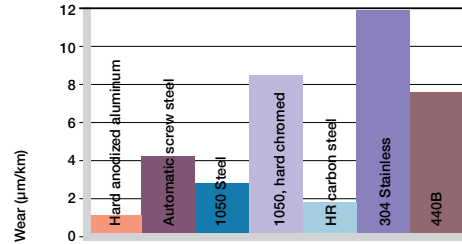
It is important to note that with increasing loads, the recommended hardness of the shaft increases. The "soft" shafts tend to wear more easily and thus increase the wear of the overall system. If the loads exceed 290 psi, it is important to recognize that the wear rate (the slope of the curves) clearly decreases with the hard shaft materials.

The comparison of rotational movements to oscillating movements shows that iglide® G300 can provide advantages in oscillating movements. The wear of the bearing is smaller for equivalent conditions. The higher the load, the larger the difference. This means that iglide® G300 can be used for oscillating movements that are well above the given maximum load of 11,600 psi. For these loads, the use of hardened shafts is recommended. In addition to the shaft materials presented here, many others have been tested. If the shaft material you plan on using is not contained in the test results presented here, please contact us.

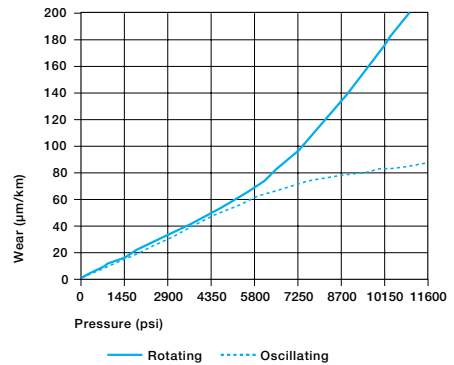
► Shaft Materials, Page 71



Wear with different shaft materials in rotational operation, as a result of the load



Wear of iglide® G300, rotating with different shaft materials, load p = 145 psi, v = 59 fpm

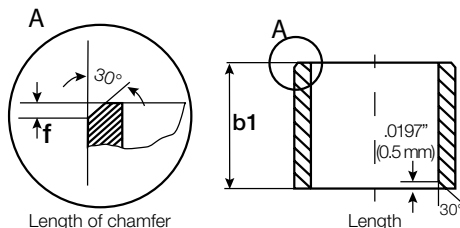


Wear for pivoting and rotating applications with shaft material 1050 hard chromed, as a result of the load

Installation Tolerances

iglide® G300 plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical & Moisture Resistance

iglide® G300 plain bearings have strong resistance to chemicals. They are also resistant to most lubricants.

iglide® G300 plain bearings are not affected by most weak organic and inorganic acids.

The moisture absorption of iglide® G300 plain bearings is approximately 1% in the standard atmosphere. The saturation limit submerged in water is 4%. This must be taken into account for these types of applications.

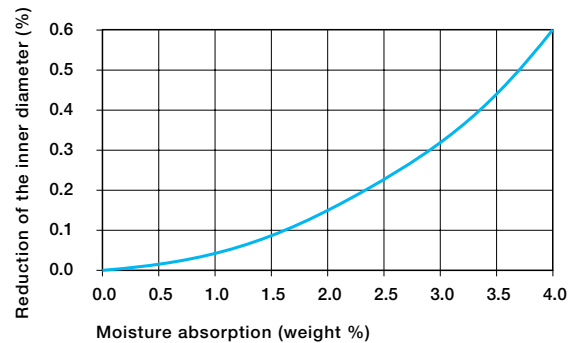
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+ to 0
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to -
Strong acids	-
Weak alkaline	+
Strong alkaline	0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® G300

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® G300 plain bearings

Radiation Resistance

Plain bearings made from iglide® G300 are resistant to radiation up to an intensity of 3×10^2 Gy.

UV-Resistance

iglide® G300 plain bearings are permanently resistant to UV-radiation.

Vacuum

iglide® G300 plain bearings outgas in a vacuum. Use in a vacuum environment is only possible for dehumidified bearings.

Electrical Properties

iglide® G300 plain bearings are electrically insulating.

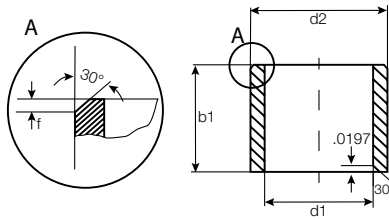
iglide® G300	
Specific volume resistance	> 10^{13} Ωcm
Surface resistance	> 10^{11} Ω

Electrical properties of iglide® G300

iglide® G300 - Product Range

Sleeve bearing - Inch

iglide®
G300



Order key

Type		Dimensions		
G	S	I	-01	03-02
iglide® material	Form S (sleeve)	Inch	Inner-Ø d1 (inch)	Outer-Ø d2 (inch)
				Length b1 (inch)

For tolerance values
please refer to page 87

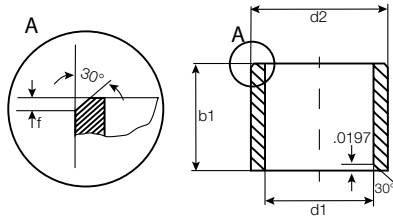
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
GSI-0203-03	1/8	3/16	3/16	.1251	.1269	.1873	.1878	.1236	.1243
GSI-0203-04	1/8	3/16	1/4			.1873	.1878	.1236	.1243
GSI-0203-06	1/8	3/16	3/8			.1873	.1878	.1236	.1243
GSI-0304-04	3/16	1/4	1/4	.1873	.1892	.2497	.2503	.1858	.1865
GSI-0304-06	3/16	1/4	3/8			.2497	.2503	.1858	.1865
GSI-0304-08	3/16	1/4	1/2			.2497	.2503	.1858	.1865
GSI-0405-04	1/4	5/16	1/4	.2498	.2521	.3122	.3128	.2481	.2490
GSI-0405-05	1/4	5/16	5/16			.3122	.3128	.2481	.2490
GSI-0405-06	1/4	5/16	3/8			.3122	.3128	.2481	.2490
GSI-0405-08	1/4	5/16	1/2			.3122	.3128	.2481	.2490
GSI-0405-10	1/4	5/16	5/8			.3122	.3128	.2481	.2490
GSI-0405-12	1/4	5/16	3/4			.3122	.3128	.2481	.2490
GSI-0506-04	5/16	3/8	1/4	.2498	.2521	.3747	.3753	.3106	.3115
GSI-0506-06	5/16	3/8	3/8			.3747	.3753	.3106	.3115
GSI-0506-08	5/16	3/8	1/2			.3747	.3753	.3106	.3115
GSI-0506-12	5/16	3/8	3/4			.3747	.3753	.3106	.3115
GSI-0607-03	5/16	3/8	3/16			.3750	.3773	.4684	.4691
GSI-0607-04	3/8	15/32	1/4	.4684	.4691			.3731	.3740
GSI-0607-06	3/8	15/32	3/8	.4684	.4691			.3731	.3740
GSI-0607-08	3/8	15/32	1/2	.4684	.4691			.3731	.3740
GSI-0607-12	3/8	15/32	3/4	.4684	.4691			.3731	.3740
GSI-0608-06	3/8	1/2	3/8	.3760	.3783	.5010	.5015	.3741	.3750
GSI-0608-08	3/8	1/2	1/2			.5010	.5015	.3741	.3750
GSI-0608-10	3/8	1/2	5/8			.5010	.5015	.3741	.3750
GSI-0608-12	3/8	1/2	3/4			.5010	.5015	.3741	.3750
GSI-0608-14	3/8	1/2	7/16			.5010	.5015	.3741	.3750
GSI-0708-04	7/16	17/32	1/4			.4379	.4406	.5309	.5316
GSI-0708-08	7/16	17/32	1/2	.5309	.5316			.4355	.4365
GSI-0809-03	1/2	19/32	3/16	.5003	.5030	.5934	.5941	.4980	.4990
GSI-0809-04	1/2	19/32	1/4			.5934	.5941	.4980	.4990
GSI-0809-06	1/2	19/32	3/8			.5934	.5941	.4980	.4990
GSI-0809-08	1/2	19/32	1/2			.5934	.5941	.4980	.4990
GSI-0809-10	1/2	19/32	5/8			.5934	.5941	.4980	.4990
GSI-0809-12	1/2	19/32	3/4			.5934	.5941	.4980	.4990
GSI-0809-14	1/2	19/32	7/8			.5934	.5941	.4980	.4990
GSI-0809-16	1/2	19/32	1			.5934	.5941	.4980	.4990
GSI-0810-08	1/2	5/8	1/2	.5013	.5040	.6250	.6260	.4990	.5000

iglide®
G300

iglide® G300 - Product Range

Sleeve bearing - Inch


Order key

Type	Dimensions
G S I -01 03-02	
iglide® material	
Form S (sleeve)	
Inch	
Inner-Ø d1 (inch)	
Outer-Ø d2 (inch)	
Length b1 (inch)	

 For tolerance values
please refer to page 87

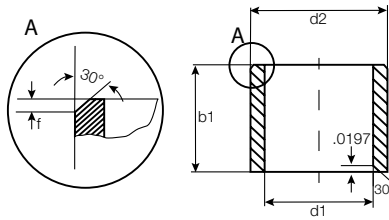
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
GSI-0810-12	1/2	5/8	3/4	.5013	.5040	.6250	.6260	.4990	.5000
GSI-0810-16	1/2	5/8	1			.6250	.6260	.4990	.5000
GSI-0910-06	9/16	21/32	3/8	.5627	.5655	.6559	.6566	.5605	.5615
GSI-0910-08	9/16	21/32	1/2			.6559	.6566	.5605	.5615
GSI-0910-10	9/16	21/32	5/8			.6559	.6566	.5605	.5615
GSI-1011-06	5/8	23/32	3/8	.6253	.6280	.7184	.7192	.6230	.6240
GSI-1011-08	5/8	23/32	1/2			.7184	.7192	.6230	.6240
GSI-1011-10	5/8	23/32	5/8			.7184	.7192	.6230	.6240
GSI-1011-12	5/8	23/32	3/4			.7184	.7192	.6230	.6240
GSI-1011-16	5/8	23/32	1			.7184	.7192	.6230	.6240
GSI-1011-20	5/8	23/32	1 1/4			.7184	.7192	.6230	.6240
GSI-1011-30	5/8	23/32	1 7/8			.7184	.7192	.6230	.6240
GSI-1012-08	5/8	3/4	1/2			.7500	.7508	.6233	.6250
GSI-1012-16	5/8	3/4	1	.7500	.7508	.6233	.6250		
GSI-1112-14	11/16	25/32	7/8	.6879	.6906	.7809	.7817	.6855	.6865
GSI-1214-02	3/4	7/8	1/8	.7508	.7541	.8747	.8755	.7479	.7491
GSI-1214-06	3/4	7/8	3/8			.8747	.8755	.7479	.7491
GSI-1214-08	3/4	7/8	1/2			.8747	.8755	.7479	.7491
GSI-1214-12	3/4	7/8	3/4			.8747	.8755	.7479	.7491
GSI-1214-16	3/4	7/8	1			.8747	.8755	.7479	.7491
GSI-1214-18	3/4	7/8	1 1/8			.8747	.8755	.7479	.7491
GSI-1214-20	3/4	7/8	1 1/4			.8747	.8755	.7479	.7491
GSI-1214-24	3/4	7/8	1 1/2			.8747	.8755	.7479	.7491
GSI-1416-06	7/8	1	3/8	.8757	.8791	.9997	1.0005	.8729	.8741
GSI-1416-08	7/8	1	1/2			.9997	1.0005	.8729	.8741
GSI-1416-10	7/8	1	5/8			.9997	1.0005	.8729	.8741
GSI-1416-12	7/8	1	3/4			.9997	1.0005	.8729	.8741
GSI-1416-16	7/8	1	1			.9997	1.0005	.8729	.8741
GSI-1416-24	7/8	1	1 1/2			.9997	1.0005	.8729	.8741
GSI-1618-06	1	1 1/8	3/8	1.0007	1.0041	1.1247	1.1255	.9979	.9991
GSI-1618-08	1	1 1/8	1/2			1.1247	1.1255	.9979	.9991
GSI-1618-12	1	1 1/8	3/4			1.1247	1.1255	.9979	.9991
GSI-1618-16	1	1 1/8	1			1.1247	1.1255	.9979	.9991
GSI-1618-20	1	1 1/8	1 1/4			1.1247	1.1255	.9979	.9991
GSI-1618-24	1	1 1/8	1 1/2			1.1247	1.1255	.9979	.9991
GSI-1618-33	1	1 1/8	2 1/16			1.1247	1.1255	.9979	.9991
GSI-1820-12	1 1/8	1 9/32	3/4	1.1254	1.1288	1.2808	1.2818	1.1226	1.1238

iglide® G300 - Product Range

Sleeve bearing - Inch

iglide®
G300



Order key

Type	Dimensions
G S I	-01 03-02
iglide® material	Form S (sleeve)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

For tolerance values
please refer to page 87

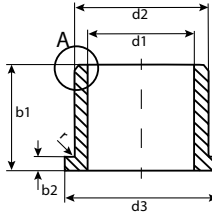
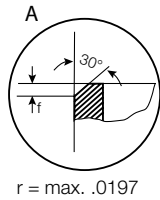
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
GSI-1820-20	1 1/8	1 9/32	1 1/4	1.1254	1.1288	1.2808	1.2818	1.1226	1.1238
GSI-1820-24	1 1/8	1 9/32	1 1/2			1.2808	1.2818	1.1226	1.1238
GSI-2022-12	1 1/4	1 13/32	3/4	1.2508	1.2548	1.4058	1.4068	1.2472	1.2488
GSI-2022-14	1 1/4	1 13/32	7/8			1.4058	1.4068	1.2472	1.2488
GSI-2022-16	1 1/4	1 13/32	1			1.4058	1.4068	1.2472	1.2488
GSI-2022-20	1 1/4	1 13/32	1 1/4			1.4058	1.4068	1.2472	1.2488
GSI-2022-24	1 1/4	1 13/32	1 1/2			1.4058	1.4068	1.2472	1.2488
GSI-2224-16	1 3/8	1 17/32	1			1.3758	1.3798	1.5308	1.5318
GSI-2224-24	1 3/8	1 17/32	1 1/2	1.5308	1.5318			1.3722	1.3738
GSI-2224-26	1 3/8	1 17/32	1 5/8	1.5308	1.5318			1.3722	1.3738
GSI-2426-06	1 1/2	1 21/32	3/8	1.5008	1.5048	1.6558	1.6568	1.4972	1.4988
GSI-2426-07	1 1/2	1 21/32	7/16			1.6558	1.6568	1.4972	1.4988
GSI-2426-08	1 1/2	1 21/32	1/2			1.6558	1.6568	1.4972	1.4988
GSI-2426-12	1 1/2	1 21/32	3/4			1.6558	1.6568	1.4972	1.4988
GSI-2426-16	1 1/2	1 21/32	1			1.6558	1.6568	1.4972	1.4988
GSI-2426-24	1 1/2	1 21/32	1 1/2			1.6558	1.6568	1.4972	1.4988
GSI-2629-14	1 5/8	1 25/32	7/8	1.6258	1.6297	1.7808	1.7818	1.6222	1.6238
GSI-2629-20	1 5/8	1 25/32	1 1/4			1.7808	1.7818	1.6222	1.6238
GSI-2831-16	1 3/4	1 15/16	1	1.7508	1.7547	1.9371	1.9381	1.7471	1.7487
GSI-2831-24	1 3/4	1 15/16	1 1/2			1.9371	1.9381	1.7471	1.7487
GSI-2831-32	1 3/4	1 15/16	2			1.9371	1.9381	1.7471	1.7487
GSI-2831-40	1 3/4	1 15/16	2 1/2			1.9371	1.9381	1.7471	1.7487
GSI-2831-48	1 3/4	1 15/16	3			1.9371	1.9381	1.7471	1.7487
GSI-3235-16	2	2 3/16	1	2.0012	2.0059	2.1871	2.1883	1.9969	1.9981
GSI-3235-24	2	2 3/16	1 1/2			2.1871	2.1883	1.9969	1.9981
GSI-3235-32	2	2 3/16	2			2.1871	2.1883	1.9969	1.9981
GSI-3639-32	2 1/4	2 7/16	2	2.2531	2.2577	2.4365	2.4377	2.2489	2.2507
GSI-4043-32	2 2/4	2 11/16	2	2.5035	2.5082	2.6869	2.6881	2.4971	2.5000
GSI-4447-32	2 3/4	2 15/16	2	2.7523	2.7570	2.9358	2.9370	2.7471	2.7500
GSI-4851-32	3	3 3/16	2	3.0023	3.0070	3.1858	3.1872	2.9971	3.0000

iglide®
G300

iglide® G300 - Product range

Flange bearing - Inch



For tolerance values
please refer to page 87



Order key

Type	Dimensions
G F I	-02 03-02
iglide® material	Form F (flange)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

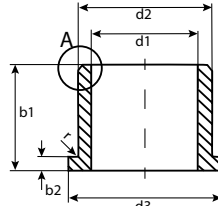
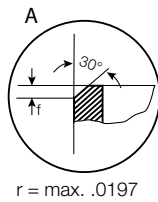
*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2 -.0055	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
GFI-0203-02	1/8	3/16	1/8	.312	.032	.1251	.1269	.1873	.1878	.1236	.1243
GFI-0203-03	1/8	3/16	3/16	.312	.032			.1873	.1878	.1236	.1243
GFI-0203-04	1/8	3/16	1/4	.312	.032			.1873	.1878	.1236	.1243
GFI-0203-06	1/8	3/16	3/8	.312	.032			.1873	.1878	.1236	.1243
GFI-0304-04	3/16	1/4	1/4	.375	.032	.1873	.1892	.2497	.2503	.1858	.1865
GFI-0304-06	3/16	1/4	3/8	.375	.032			.2497	.2503	.1858	.1865
GFI-0304-08	3/16	1/4	1/2	.375	.032			.2497	.2503	.1858	.1865
GFI-0405-2.4	1/4	5/16	5/32	.500	.032	.2498	.2521	.3122	.3128	.2481	.2490
GFI-0405-04	1/4	5/16	1/4	.500	.032			.3122	.3128	.2481	.2490
GFI-0405-05	1/4	5/16	5/16	.500	.032			.3122	.3128	.2481	.2490
GFI-0405-06	1/4	5/16	3/8	.500	.032			.3122	.3128	.2481	.2490
GFI-0405-08	1/4	5/16	1/2	.500	.032			.3122	.3128	.2481	.2490
GFI-0405-12	1/4	5/16	3/4	.500	.032	.3122	.3128	.2481	.2490		
GFI-0506-03	5/16	3/8	3/16	.562	.032	.3125	.3148	.3747	.3753	.3106	.3115
GFI-0506-04	5/16	3/8	1/4	.562	.032			.3747	.3753	.3106	.3115
GFI-0506-06	5/16	3/8	3/8	.562	.032			.3747	.3753	.3106	.3115
GFI-0506-08	5/16	3/8	1/2	.562	.032			.3747	.3753	.3106	.3115
GFI-0506-12	5/16	3/8	3/4	.562	.032			.3747	.3753	.3106	.3115
GFI-0607-04	3/8	15/32	1/4	.687	.046	.3750	.3773	.4684	.4691	.3731	.3740
GFI-0607-05	3/8	15/32	5/16	.687	.046			.4684	.4691	.3731	.3740
GFI-0607-06	3/8	15/32	3/8	.687	.046			.4684	.4691	.3731	.3740
GFI-0607-08	3/8	15/32	1/2	.687	.046			.4684	.4691	.3731	.3740
GFI-0607-12	3/8	15/32	3/4	.687	.046			.4684	.4691	.3731	.3740
GFI-0607-14	3/8	15/32	7/8	.687	.046	.4684	.4691	.3731	.3740		
GFI-0708-04	7/16	17/32	1/4	.750	.046	.4379	.4406	.5309	.5316	.4355	.4365
GFI-0708-08	7/16	17/32	1/2	.750	.046			.5309	.5316	.4355	.4365
GFI-0809-02	1/2	19/32	1/8	.875	.046	.5003	.5030	.5934	.5941	.4980	.4990
GFI-0809-04	1/2	19/32	1/4	.875	.046			.5934	.5941	.4980	.4990
GFI-0809-05	1/2	19/32	5/16	.875	.046			.5934	.5941	.4980	.4990
GFI-0809-06	1/2	19/32	3/8	.875	.046			.5934	.5941	.4980	.4990
GFI-0809-08	1/2	19/32	1/2	.875	.046			.5934	.5941	.4980	.4990
GFI-0809-12	1/2	19/32	3/4	.875	.046			.5934	.5941	.4980	.4990
GFI-0809-16	1/2	19/32	1	.875	.046	.5934	.5941	.4980	.4990		
GFI-1011-06	5/8	23/32	3/8	.937	.046	.6253	.6280	.7184	.7192	.6230	.6240
GFI-1011-08	5/8	23/32	1/2	.937	.046			.7184	.7192	.6230	.6240
GFI-1011-12	5/8	23/32	3/4	.937	.046			.7184	.7192	.6230	.6240
GFI-1011-14	5/8	23/32	7/8	.937	.046			.7184	.7192	.6230	.6240

iglide® G300 - Product range

Flange bearing - Inch

iglide®
G300



Order key

Type	Dimensions
G F I	-02 03-02
iglide® material	Form F (flange)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

For tolerance values please refer to page 87

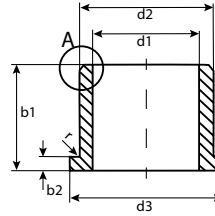
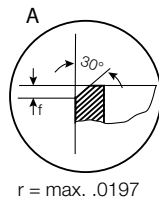
*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2 -.0055	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
GFI-1011-16	5/8	23/32	1	.937	.046	.6253	.6280	.7184	.7192	.6230	.6240
GFI-1011-24	5/8	23/32	1 1/2	.937	.046			.7184	.7192	.6230	.6240
GFI-1214-02	3/4	7/8	1/8	1.125	.062	.7508	.7541	.8747	.8755	.7479	.7491
GFI-1214-06	3/4	7/8	3/8	1.125	.062			.8747	.8755	.7479	.7491
GFI-1214-08	3/4	7/8	1/2	1.125	.062			.8747	.8755	.7479	.7491
GFI-1214-10	3/4	7/8	5/8	1.125	.062			.8747	.8755	.7479	.7491
GFI-1214-12	3/4	7/8	3/4	1.125	.062			.8747	.8755	.7479	.7491
GFI-1214-16	3/4	7/8	1	1.125	.062			.8747	.8755	.7479	.7491
GFI-1214-24	3/4	7/8	1 1/2	1.125	.062			.8747	.8755	.7479	.7491
GFI-1416-08	7/8	1	1/2	1.250	.062			.8757	.8791	.9997	1.0005
GFI-1416-12	7/8	1	3/4	1.250	.062	.9997	1.0005			.8729	.8741
GFI-1416-16	7/8	1	1	1.250	.062	.9997	1.0005			.8729	.8741
GFI-1416-20	7/8	1	1 1/4	1.250	.062	.9997	1.0005			.8729	.8741
GFI-1416-24	7/8	1	1 1/2	1.250	.062	.9997	1.0005			.8729	.8741
GFI-1618-04	1	1 1/8	1/4	1.375	.062	1.0007	1.0041			1.1247	1.1255
GFI-1618-08	1	1 1/8	1/2	1.375	.062			1.1247	1.1255	.9979	.9991
GFI-1618-12	1	1 1/8	3/4	1.375	.062			1.1247	1.1255	.9979	.9991
GFI-1618-16	1	1 1/8	1	1.375	.062			1.1247	1.1255	.9979	.9991
GFI-1618-20	1	1 1/8	1 1/4	1.375	.062			1.1247	1.1255	.9979	.9991
GFI-1618-24	1	1 1/8	1 1/2	1.375	.062			1.1247	1.1255	.9979	.9991
GFI-1820-12	1 1/8	1 9/32	3/4	1.562	.078	1.1254	1.1288	1.2808	1.2818	1.1226	1.1238
GFI-1820-16	1 1/8	1 9/32	1	1.562	.078			1.2808	1.2818	1.1226	1.1238
GFI-1820-24	1 1/8	1 9/32	1 1/2	1.562	.078			1.2808	1.2818	1.1226	1.1238
GFI-2022-06	1 1/4	1 13/32	3/8	1.687	.078	1.2508	1.2548	1.4058	1.4068	1.2472	1.2488
GFI-2022-12	1 1/4	1 13/32	3/4	1.687	.078			1.4058	1.4068	1.2472	1.2488
GFI-2022-14	1 1/4	1 13/32	7/8	1.687	.078			1.4058	1.4068	1.2472	1.2488
GFI-2022-16	1 1/4	1 13/32	1	1.687	.078			1.4058	1.4068	1.2472	1.2488
GFI-2022-20	1 1/4	1 13/32	1 1/4	1.687	.078			1.4058	1.4068	1.2472	1.2488
GFI-2022-24	1 1/4	1 13/32	1 1/2	1.687	.078			1.4058	1.4068	1.2472	1.2488
GFI-2224-06	1 3/8	1 17/32	3/8	1.875	.078	1.3758	1.3798	1.5308	1.5318	1.3722	1.3738
GFI-2224-16	1 3/8	1 17/32	1	1.875	.078			1.5308	1.5318	1.3722	1.3738
GFI-2426-08	1 1/2	1 21/32	1/2	2.000	.078	1.5008	1.5048	1.6558	1.6568	1.4972	1.4988
GFI-2426-12	1 1/2	1 21/32	3/4	2.000	.078			1.6558	1.6568	1.4972	1.4988
GFI-2426-16	1 1/2	1 21/32	1	2.000	.078			1.6558	1.6568	1.4972	1.4988
GFI-2426-24	1 1/2	1 21/32	1 1/2	2.000	.078			1.6558	1.6568	1.4972	1.4988
GFI-2831-16	1 3/4	1 15/16	1	2.375	.093	1.7508	1.7547	1.9371	1.9381	1.7471	1.7487
GFI-2831-24	1 3/4	1 15/16	1 1/2	2.375	.093			1.9371	1.9381	1.7471	1.7487

iglide®
G300

iglide® G300 - Product range

Flange bearing - Inch



For tolerance values
please refer to page 87



Order key

Type	Dimensions
G F I	-02 03-02
iglide® material	Form F (flange)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

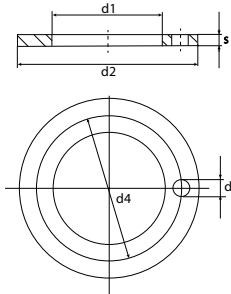
*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2 -.0055	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
GFI-2831-32	1 3/4	1 15/16	2	2.375	.093	1.7508	1.7547	1.9371	1.9381	1.7471	1.7487
GFI-3235-16	2	2 3/16	1	2.625	.093	2.0012	2.0059	2.1871	2.1883	1.9969	1.9981
GFI-3235-24	2	2 3/16	1 1/2	2.625	.093			2.1871	2.1883	1.9969	1.9981
GFI-3235-32	2	2 3/16	2	2.625	.093			2.1871	2.1883	1.9969	1.9981
GFI-3639-32	2 1/4	2 7/16	2	2.750	.093	2.2531	2.2577	2.4365	2.4377	2.2489	2.2507
GFI-4043-32	2 1/2	2 11/16	2	3.125	.093	2.5035	2.5082	2.6869	2.6881	2.4971	2.5000
GFI-4447-32	2 3/4	2 15/16	2	3.375	.093	2.7523	2.7570	2.9358	2.9370	2.7471	2.7500

iglide® G300 - Product Range

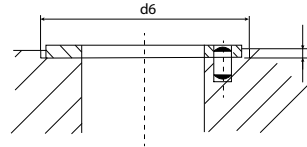
Thrust washer - Inch

iglide®
G300



Order key

Type	Dimensions
G T I -04 08-005	
iglide® material	
Form T (washer)	
Inch	
Inner-Ø d1 (inch)	
Outer-Ø d2 (inch)	
Thickness s (inch)	



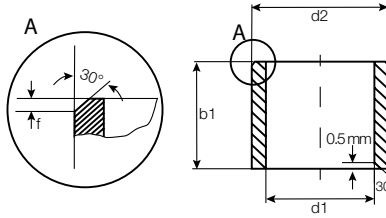
Part Number	d1 +.010	d2 -.010	s -.0020	d4 +-.005	d5 +.015 +.005	h +.008	d6 +.005
GTI-0610-01	.375	.625	.040	*	*	*	.375
GTI-0814-01	.500	.875	.0585	.692	.067	.040	.875
GTI-1018-01	.625	1.125	.0585	.880	.099	.040	1.125
GTI-1220-01	.750	1.250	.0585	1.005	.099	.040	1.250
GTI-1424-01	.875	1.500	.0585	1.192	.130	.040	1.500
GTI-1628-01	1.000	1.750	.0585	1.380	.130	.040	1.750
GTI-2034-01	1.250	2.125	.0585	1.692	.161	.040	2.125
GTI-2440-01	1.500	2.500	.0585	2.005	.192	.040	2.500
GTI-2844-01	1.750	2.750	.0585	2.255	.192	.040	2.750
GTI-3248-01	2.000	3.000	.0895	2.505	.192	.070	3.000

*Designed without fixation hole

iglide®
G300

iglide® G300 - Product Range

Sleeve bearing - Metric


Order key

Type	Dimensions
G S M -01 03-02	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
please refer to page 87

Dimensions according to ISO 3547-1 and special dimensions

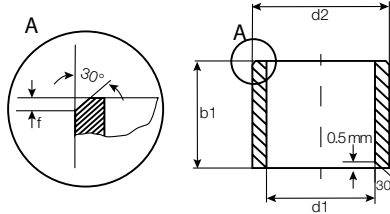
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
GSM-0103-02	1.5	3.0	2.0	1.514	1.554	3.000	3.010	1.475	1.500
GSM-0203-03	2.0	3.5	3.0	2.014	2.054	3.500	3.510	1.975	2.000
GSM-02504-05	2.5	4.5	5.0	2.514	2.554	4.500	4.510	2.475	2.500
GSM-0304-03	3.0	4.5	3.0	3.014	3.054	4.500	4.512	2.975	3.000
GSM-0304-05	3.0	4.5	5.0			4.500	4.512	2.975	3.000
GSM-0304-06	3.0	4.5	6.0			4.500	4.512	2.975	3.000
GSM-0304-16	3.0	4.5	16.0			4.500	4.512	2.975	3.000
GSM-0405-04	4.0	5.5	4.0	4.020	4.068	5.500	5.512	3.970	4.000
GSM-0405-06	4.0	5.5	6.0	4.020	4.068	5.500	5.512	3.970	4.000
GSM-0406-08	4.5	6.0	8.0	4.520	4.568	6.000	6.012	4.470	4.500
GSM-0407-05	4.0	7.0	5.5	4.020	4.068	7.000	7.015	3.970	4.000
GSM-0506-03	5.0	6.0	3.0	5.010	5.040	6.000	6.012	4.970	5.000
GSM-0506-046	5.0	6.0	4.6			6.000	6.012	4.970	5.000
GSM-0506-05	5.0	6.0	5.0			6.000	6.012	4.970	5.000
GSM-0506-07	5.0	6.0	7.0			6.000	6.012	4.970	5.000
GSM-0507-05	5.0	7.0	5.0	5.020	5.068	7.000	7.015	4.970	5.000
GSM-0507-07	5.0	7.0	7.0			7.000	7.015	4.970	5.000
GSM-0507-08	5.0	7.0	8.0			7.000	7.015	4.970	5.000
GSM-0507-10	5.0	7.0	10.0			7.000	7.015	4.970	5.000
GSM-0607-06	6.0	7.0	6.0	6.010	6.040	7.000	7.015	5.970	6.000
GSM-0607-12	6.0	7.0	12.0			7.000	7.015	5.970	6.000
GSM-0607-17	6.0	7.0	17.0			7.000	7.015	5.970	6.000
GSM-0607-17.5	6.0	7.0	17.5			7.000	7.015	5.970	6.000
GSM-0607-19	6.0	7.0	19.0			7.000	7.015	5.970	6.000
GSM-0608-025	6.0	8.0	2.5	6.020	6.068	8.000	8.015	5.970	6.000
GSM-0608-03	6.0	8.0	3.0			8.000	8.015	5.970	6.000
GSM-0608-04	6.0	8.0	4.0			8.000	8.015	5.970	6.000
GSM-0608-05	6.0	8.0	5.0			8.000	8.015	5.970	6.000
GSM-0608-055	6.0	8.0	5.5			8.000	8.015	5.970	6.000
GSM-0608-06	6.0	8.0	6.0			8.000	8.015	5.970	6.000
GSM-0608-08	6.0	8.0	8.0			8.000	8.015	5.970	6.000
GSM-0608-09	6.0	8.0	9.5			8.000	8.015	5.970	6.000
GSM-0608-10	6.0	8.0	10.0			8.000	8.015	5.970	6.000
GSM-0608-11	6.0	8.0	11.8			8.000	8.015	5.970	6.000
GSM-0608-13	6.0	8.0	13.8			8.000	8.015	5.970	6.000
GSM-0708-07	7.0	8.0	7.0	7.013	7.049	8.000	8.015	6.964	7.000
GSM-0708-10	7.0	8.0	10.0			8.000	8.015	6.964	7.000

iglide® G300 - Product Range

Sleeve bearing - Metric

iglide®
G300



Order key

Type		Dimensions		
G	S	M	-01	03-02
iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)
				Length b1 (mm)

For tolerance values please refer to page 87

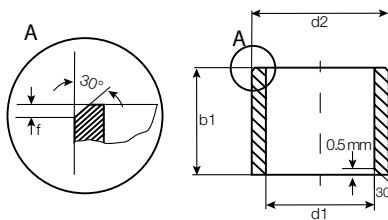
Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
GSM-0708-19	7.0	8.0	19.0	7.013	7.049	8.000	8.015	6.964	7.000
GSM-0709-05	7.0	9.0	5.0	7.025	7.083	9.000	9.015	6.964	7.000
GSM-0709-08	7.0	9.0	8.0			9.000	9.015	6.964	7.000
GSM-0709-09	7.0	9.0	9.0			9.000	9.015	6.964	7.000
GSM-0709-10	7.0	9.0	10.0			9.000	9.015	6.694	7.000
GSM-0709-12	7.0	9.0	12.0			9.000	9.015	6.694	7.000
GSM-0809-03	8.0	9.0	3.0	8.013	8.049	9.000	9.015	7.964	8.000
GSM-0809-05	8.0	9.0	5.0			9.000	9.015	7.964	8.000
GSM-0809-06	8.0	9.0	6.0			9.000	9.015	7.964	8.000
GSM-0809-08	8.0	9.0	8.0			9.000	9.015	7.964	8.000
GSM-0809-12	8.0	9.0	12.0			9.000	9.015	7.964	8.000
GSM-0810-05	8.0	10.0	5.0	8.025	8.083	10.000	10.015	7.964	8.000
GSM-0810-06	8.0	10.0	6.0			10.000	10.015	7.964	8.000
GSM-0810-07	8.0	10.0	7.0			10.000	10.015	7.964	8.000
GSM-0810-08	8.0	10.0	8.0			10.000	10.015	7.964	8.000
GSM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
GSM-0810-12	8.0	10.0	12.0			10.000	10.015	7.964	8.000
GSM-0810-13	8.0	10.0	13.0			10.000	10.015	7.964	8.000
GSM-0810-14	8.0	10.0	14.0			10.000	10.015	7.964	8.000
GSM-0810-15	8.0	10.0	15.0			10.000	10.015	7.964	8.000
GSM-0810-16	8.0	10.0	16.0			10.000	10.015	7.964	8.000
GSM-0810-18	8.0	10.0	18.0			10.000	10.015	7.964	8.000
GSM-0810-20	8.0	10.0	20.0			10.000	10.015	7.964	8.000
GSM-0810-22	8.0	10.0	22.0			10.000	10.015	7.964	8.000
GSM-0810-25	8.0	10.0	25.0	10.000	10.015	7.964	8.000		
GSM-0910-12	9.0	10.0	12.0	9.013	9.049	10.000	10.015	8.964	9.000
GSM-0910-16	9.0	10.0	16.0			10.000	10.015	8.964	9.000
GSM-0911-06	9.0	11.0	6.0	9.025	9.083	11.000	11.018	8.964	9.000
GSM-0911-20	9.0	11.0	20.0			11.000	11.018	8.964	9.000
GSM-1011-06	10.0	11.0	6.0	10.013	10.049	11.000	11.018	9.964	10.000
GSM-1011-07	10.0	11.0	7.0			11.000	11.018	9.964	10.000
GSM-1011-10	10.0	11.0	10.0			11.000	11.018	9.964	10.000
GSM-1011-20	10.0	11.0	20.0			11.000	11.018	9.964	10.000
GSM-1011-25	10.0	11.0	25.0			11.000	11.018	9.964	10.000
GSM-1011-30	10.0	11.0	30.0			11.000	11.018	9.964	10.000
GSM-1012-04	10.0	12.0	4.0	10.025	10.083	12.000	12.018	9.964	10.000
GSM-1012-045	10.0	12.0	4.5			12.000	12.018	9.964	10.000

iglide®
G300

iglide® G300 - Product Range

Sleeve bearing - Metric



Order key

Type	Dimensions
G S M -01 03-02	
iglide® material	Form S (sleeve)
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

For tolerance values please refer to page 87

Dimensions according to ISO 3547-1 and special dimensions

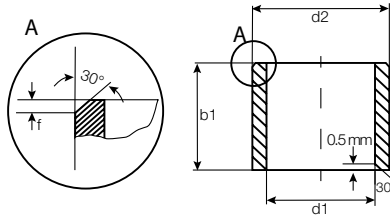
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size			
				Min.	Max.	Min.	Max.	Min.	Max.		
GSM-1012-05	10.0	12.0	5.0	10.025	10.083	12.000	12.018	9.964	10.000		
GSM-1012-06	10.0	12.0	6.0			12.000	12.018	9.964	10.000		
GSM-1012-07	10.0	12.0	7.0			12.000	12.018	9.964	10.000		
GSM-1012-08	10.0	12.0	8.0			12.000	12.018	9.964	10.000		
GSM-1012-09	10.0	12.0	9.0			12.000	12.018	9.964	10.000		
GSM-1012-10	10.0	12.0	10.0			12.000	12.018	9.964	10.000		
GSM-1012-12	10.0	12.0	12.0			12.000	12.018	9.964	10.000		
GSM-1012-14	10.0	12.0	14.0			12.000	12.018	9.964	10.000		
GSM-1012-15	10.0	12.0	15.0			12.000	12.018	9.964	10.000		
GSM-1012-17	10.0	12.0	17.0			12.000	12.018	9.964	10.000		
GSM-1012-20	10.0	12.0	20.0	12.000	12.018	9.964	10.000				
GSM-1013-13	10.0	13.0	13.5	10.025	10.083	13.000	13.018	9.964	10.000		
GSM-1014-10	10.0	14.0	10.0	10.025	10.083	14.000	14.018	9.964	10.000		
GSM-1014-20	10.0	14.0	20.0			14.000	14.018	9.964	10.000		
GSM-1016-10	10.0	16.0	10.0	10.040	10.130	16.000	16.018	9.964	10.000		
GSM-1016-50	10.0	16.0	50.0			16.000	16.018	9.964	10.000		
GSM-1213-047	12.0	13.0	4.7	12.016	12.059	13.000	13.018	11.957	12.000		
GSM-1213-10	12.0	13.0	10.0			13.000	13.018	11.957	12.000		
GSM-1213-12	12.0	13.0	12.0			13.000	13.018	11.957	12.000		
GSM-1213-15	12.0	13.0	15.0			13.000	13.018	11.957	12.000		
GSM-1214-04	12.0	14.0	4.0	12.032	12.102	14.000	14.018	11.957	12.000		
GSM-1214-05	12.0	14.0	5.0			14.000	14.018	11.957	12.000		
GSM-1214-06	12.0	14.0	6.0			14.000	14.018	11.957	12.000		
GSM-1214-08	12.0	14.0	8.0			14.000	14.018	11.957	12.000		
GSM-1214-10	12.0	14.0	10.0			14.000	14.018	11.957	12.000		
GSM-1214-12	12.0	14.0	12.0			14.000	14.018	11.957	12.000		
GSM-1214-14	12.0	14.0	14.0			14.000	14.018	11.957	12.000		
GSM-1214-15	12.0	14.0	15.0			14.000	14.018	11.957	12.000		
GSM-1214-20	12.0	14.0	20.0			14.000	14.018	11.957	12.000		
GSM-1214-25	12.0	14.0	25.0			14.000	14.018	11.957	12.000		
GSM-1215-06	12.0	15.0	6.0			12.032	12.102	15.000	15.018	11.957	12.000
GSM-1215-22	12.0	15.0	22.0					15.000	15.018	11.957	12.000
GSM-1216-10	12.0	16.0	10.0	12.032	12.102	16.000	16.018	11.957	12.000		
GSM-1216-20	12.0	16.0	20.0			16.000	16.018	11.957	12.000		
GSM-1315-07	13.0	15.0	7.0	13.032	13.102	15.000	15.018	12.957	13.000		
GSM-1315-075	13.0	15.0	7.5			15.000	15.018	12.957	13.000		
GSM-1315-10	13.0	15.0	10.0			15.000	15.018	12.957	13.000		

iglide® G300 - Product Range

Sleeve bearing - Metric

iglide®
G300



Order key

Type		Dimensions		
G	S	M	-01	03-02
iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)
				Length b1 (mm)

For tolerance values please refer to page 87

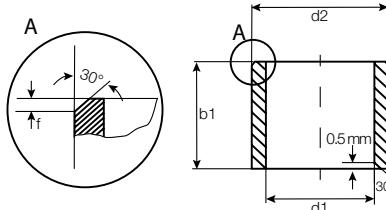
Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size			
				Min.	Max.	Min.	Max.	Min.	Max.		
GSM-1315-15	13.0	15.0	15.0	13.032	13.102	15.000	15.018	12.957	13.000		
GSM-1315-20	13.0	15.0	20.0			15.000	15.018	12.957	13.000		
GSM-1315-25	13.0	15.0	25.0			15.000	15.018	12.957	13.000		
GSM-1416-03	14.0	16.0	3.0	14.032	14.102	16.000	16.018	13.957	14.000		
GSM-1416-06	14.0	16.0	6.0			16.000	16.018	13.957	14.000		
GSM-1416-08	14.0	16.0	8.0			16.000	16.018	13.957	14.000		
GSM-1416-10	14.0	16.0	10.0			16.000	16.018	13.957	14.000		
GSM-1416-12	14.0	16.0	12.0			16.000	16.018	13.957	14.000		
GSM-1416-15	14.0	16.0	15.0			16.000	16.018	13.957	14.000		
GSM-1416-20	14.0	16.0	20.0			16.000	16.018	13.957	14.000		
GSM-1416-25	14.0	16.0	25.0			16.000	16.018	13.957	14.000		
GSM-1416-45	14.0	16.0	45.0			16.000	16.018	13.957	14.000		
GSM-1516-10	15.0	16.0	10.0			15.016	15.059	16.000	16.018	14.957	15.000
GSM-1516-15	15.0	16.0	15.0	16.000	16.018			14.957	15.000		
GSM-1517-04	15.0	17.0	4.0	15.032	15.102	17.000	17.018	14.957	15.000		
GSM-1517-10	15.0	17.0	10.0			17.000	17.018	14.957	15.000		
GSM-1517-12	15.0	17.0	12.0			17.000	17.018	14.957	15.000		
GSM-1517-15	15.0	17.0	15.0			17.000	17.018	14.957	15.000		
GSM-1517-20	15.0	17.0	20.0			17.000	17.018	14.957	15.000		
GSM-1517-25	15.0	17.0	25.0			17.000	17.018	14.957	15.000		
GSM-1618-055	16.0	18.0	5.5	16.032	16.102	18.000	18.018	15.957	16.000		
GSM-1618-08	16.0	18.0	8.0			18.000	18.018	15.957	16.000		
GSM-1618-10	16.0	18.0	10.0			18.000	18.018	15.957	16.000		
GSM-1618-12	16.0	18.0	12.0			18.000	18.018	15.957	16.000		
GSM-1618-13.5	16.0	18.0	13.5			18.000	18.018	15.957	16.000		
GSM-1618-13.8	16.0	18.0	13.8			18.000	18.018	15.957	16.000		
GSM-1618-15	16.0	18.0	15.0			18.000	18.018	15.957	16.000		
GSM-1618-20	16.0	18.0	20.0			18.000	18.018	15.957	16.000		
GSM-1618-25	16.0	18.0	25.0			18.000	18.018	15.957	16.000		
GSM-1618-30	16.0	18.0	30.0			18.000	18.018	15.957	16.000		
GSM-1618-50	16.0	18.0	50.0			18.000	18.018	15.957	16.000		
GSM-1719-15	17.0	19.0	15.0			17.032	17.102	19.000	19.021	16.957	17.000
GSM-1819-15	18.0	19.0	15.0			18.032	18.102	19.000	19.021	17.957	18.000
GSM-1820-06	18.0	20.0	6.0	18.032	18.102	20.000	20.021	17.957	18.000		
GSM-1820-10	18.0	20.0	10.0			20.000	20.021	17.957	18.000		
GSM-1820-12	18.0	20.0	12.0			20.000	20.021	17.957	18.000		
GSM-1820-15	18.0	20.0	15.0			20.000	20.021	17.957	18.000		

iglide®
G300

iglide® G300 - Product Range

Sleeve bearing - Metric


Order key

Type	Dimensions
G S M -01 03-02	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
please refer to page 87

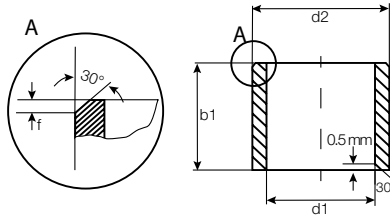
 Dimensions according to ISO 3547-1 and special dimensions
 *Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
GSM-1820-20	18.0	20.0	20.0	18.032	18.102	20.000	20.021	17.957	18.000
GSM-1820-25	18.0	20.0	25.0			20.000	20.021	17.957	18.000
GSM-1820-34	18.0	20.0	34.0			20.000	20.021	17.957	18.000
GSM-1820-38	18.0	20.0	38.0			20.000	20.021	17.957	18.000
GSM-1820-45	18.0	20.0	45.0			20.000	20.021	17.957	18.000
GSM-1822-15	18.0	22.0	15.0	18.032	18.102	22.000	22.021	17.957	18.000
GSM-1822-30	18.0	22.0	30.0			22.000	22.021	17.957	18.000
GSM-1922-06	19.0	22.0	6.0	19.040	19.124	22.000	22.021	18.948	19.000
GSM-1922-28	19.0	22.0	28.0			22.000	22.021	18.948	19.000
GSM-1922-35	19.0	22.0	35.0			22.000	22.021	18.948	19.000
GSM-2021-20	20.0	21.0	20.0	20.020	20.072	21.000	21.021	19.948	20.000
GSM-2022-03	20.0	22.0	3.0	20.040	20.124	22.000	22.021	19.948	20.000
GSM-2022-08	20.0	22.0	8.0			22.000	22.021	19.948	20.000
GSM-2022-105	20.0	22.0	10.5			22.000	22.021	19.948	20.000
GSM-2022-15	20.0	22.0	15.0			22.000	22.021	19.948	20.000
GSM-2022-20	20.0	22.0	20.0			22.000	22.021	19.948	20.000
GSM-2022-22	20.0	22.0	22.0			22.000	22.021	19.948	20.000
GSM-2022-28	20.0	22.0	28.0			22.000	22.021	19.948	20.000
GSM-2022-30	20.0	22.0	30.0			22.000	22.021	19.948	20.000
GSM-2022-47	20.0	22.0	47.0			22.000	22.021	19.948	20.000
GSM-2023-045	20.0	23.0	4.5			20.040	20.124	23.000	23.021
GSM-2023-10	20.0	23.0	10.0	23.000	23.021			19.948	20.000
GSM-2023-15	20.0	23.0	15.0	23.000	23.021			19.948	20.000
GSM-2023-20	20.0	23.0	20.0	23.000	23.021			19.948	20.000
GSM-2023-23	20.0	23.0	23.0	23.000	23.021			19.948	20.000
GSM-2023-24	20.0	23.0	24.0	23.000	23.021			19.948	20.000
GSM-2023-25	20.0	23.0	25.0	23.000	23.021			19.948	20.000
GSM-2023-30	20.0	23.0	30.0	23.000	23.021			19.948	20.000
GSM-2224-05	22.0	24.0	5.0	22.040	22.124	24.000	24.021	21.948	22.000
GSM-2224-08	22.0	24.0	8.0			24.000	24.021	21.948	22.000
GSM-2224-10	22.0	24.0	10.0			24.000	24.021	21.948	22.000
GSM-2224-12	22.0	24.0	12.0			24.000	24.021	21.948	22.000
GSM-2224-15	22.0	24.0	15.0			24.000	24.021	21.948	22.000
GSM-2224-17	22.0	24.0	17.0			24.000	24.021	21.948	22.000
GSM-2224-20	22.0	24.0	20.0			24.000	24.021	21.948	22.000
GSM-2224-30	22.0	24.0	30.0			24.000	24.021	21.948	22.000
GSM-2224-48	22.0	24.0	48.0			24.000	24.021	21.948	22.000

iglide® G300 - Product Range

Sleeve bearing - Metric

iglide®
G300



Order key

Type		Dimensions		
G	S	M-01 03-02		
iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)
				Length b1 (mm)

For tolerance values
please refer to page 87

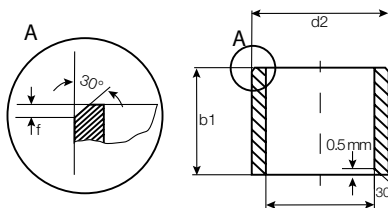
Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
GSM-2225-15	22.0	25.0	15.0	22.040	22.124	25.000	25.021	21.948	22.000
GSM-2225-20	22.0	25.0	20.0			25.000	25.021	21.948	22.000
GSM-2225-25	22.0	25.0	25.0			25.000	25.021	21.948	22.000
GSM-2225-30	22.0	25.0	30.0			25.000	25.021	21.948	22.000
GSM-2427-06	24.0	27.0	6.0	24.040	24.124	27.000	27.021	23.948	24.000
GSM-2427-15	24.0	27.0	15.0			27.000	27.021	23.948	24.000
GSM-2427-20	24.0	27.0	20.0			27.000	27.021	23.948	24.000
GSM-2427-24	24.0	27.0	24.0			27.000	27.021	23.948	24.000
GSM-2427-25	24.0	27.0	25.0			27.000	27.021	23.948	24.000
GSM-2427-30	24.0	27.0	30.0			27.000	27.021	23.948	24.000
GSM-2526-23	25.0	26.0	23.0	25.020	25.072	26.000	26.021	24.948	25.000
GSM-2526-25	25.0	26.0	25.0			26.000	26.021	24.948	25.000
GSM-2528-12	25.0	28.0	12.0	25.040	25.124	28.000	28.021	24.948	25.000
GSM-2528-15	25.0	28.0	15.0			28.000	28.021	24.948	25.000
GSM-2528-20	25.0	28.0	20.0			28.000	28.021	24.948	25.000
GSM-2528-24	25.0	28.0	24.0			28.000	28.021	24.948	25.000
GSM-2528-25	25.0	28.0	25.0			28.000	28.021	24.948	25.000
GSM-2528-30	25.0	28.0	30.0			28.000	28.021	24.948	25.000
GSM-2528-35	25.0	28.0	35.0			28.000	28.021	24.948	25.000
GSM-2528-50	25.0	28.0	50.0			28.000	28.021	24.948	25.000
GSM-2630-16	26.0	30.0	16.0	26.040	26.124	30.000	30.021	25.948	26.000
GSM-2730-05	27.0	30.0	5.0	26.040	27.124	30.000	30.021	26.948	27.000
GSM-2832-10.5	28.0	32.0	10.5	28.040	28.124	32.000	32.025	27.948	28.000
GSM-2832-12	28.0	32.0	12.0			32.000	32.025	27.948	28.000
GSM-2832-15	28.0	32.0	15.0			32.000	32.025	27.948	28.000
GSM-2832-20	28.0	32.0	20.0			32.000	32.025	27.948	28.000
GSM-2832-23	28.0	32.0	23.0			32.000	32.025	27.948	28.000
GSM-2832-25	28.0	32.0	25.0			32.000	32.025	27.948	28.000
GSM-2832-30	28.0	32.0	30.0			32.000	32.025	27.948	28.000
GSM-3031-12	30.0	31.0	12.0	30.020	30.072	31.000	31.025	29.948	30.000
GSM-3031-30	30.0	31.0	30.0			31.000	31.025	29.948	30.000
GSM-3034-12	30.0	34.0	12.0	30.040	30.124	34.000	34.025	29.948	30.000
GSM-3034-15	30.0	34.0	15.0			34.000	34.025	29.948	30.000
GSM-3034-20	30.0	34.0	20.0			34.000	34.025	29.948	30.000
GSM-3034-24	30.0	34.0	24.0			34.000	34.025	29.948	30.000
GSM-3034-25	30.0	34.0	25.0			34.000	34.025	29.948	30.000
GSM-3034-30	30.0	34.0	30.0			34.000	34.025	29.948	30.000

iglide®
G300

iglide® G300 - Product Range

Sleeve bearing - Metric



Order key

Type	Dimensions
G S M -01 03-02	
iglide® material	Form S (sleeve)
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

For tolerance values please refer to page 87

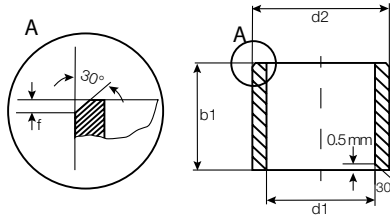
Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
GSM-3034-35	30.0	34.0	35.0	30.040	30.124	34.000	34.025	29.948	30.000
GSM-3034-40	30.0	34.0	40.0			34.000	34.025	29.948	30.000
GSM-3236-15	32.0	36.0	15.0	32.050	32.150	36.000	36.025	31.938	32.000
GSM-3236-20	32.0	36.0	20.0			36.000	36.025	31.938	32.000
GSM-3236-30	32.0	36.0	30.0			36.000	36.025	31.938	32.000
GSM-3236-40	32.0	36.0	40.0			36.000	36.025	31.938	32.000
GSM-3539-14	35.0	39.0	14.0	35.050	35.150	39.000	39.025	34.938	35.000
GSM-3539-20	35.0	39.0	20.0			39.000	39.025	34.938	35.000
GSM-3539-25	35.0	39.0	25.0			39.000	39.025	34.938	35.000
GSM-3539-30	35.0	39.0	30.0			39.000	39.025	34.938	35.000
GSM-3539-40	35.0	39.0	40.0			39.000	39.025	34.938	35.000
GSM-3539-50	35.0	39.0	50.0			39.000	39.025	34.938	35.000
GSM-3640-20	36.0	40.0	20.0	36.050	36.150	40.000	40.025	35.938	36.000
GSM-3741-20	37.0	41.0	20.0	37.050	37.150	41.000	41.025	36.938	37.000
GSM-4044-10	40.0	44.0	10.0	40.050	40.150	44.000	44.025	39.938	40.000
GSM-4044-16	40.0	44.0	16.0			44.000	44.025	39.938	40.000
GSM-4044-20	40.0	44.0	20.0			44.000	44.025	39.938	40.000
GSM-4044-30	40.0	44.0	30.0			44.000	44.025	39.938	40.000
GSM-4044-40	40.0	44.0	40.0			44.000	44.025	39.938	40.000
GSM-4044-50	40.0	44.0	50.0			44.000	44.025	39.938	40.000
GSM-4246-40	42.0	46.0	40.0	42.050	42.150	46.000	46.025	41.938	42.000
GSM-4550-10	45.0	50.0	10.0	45.050	45.150	50.000	50.025	44.938	45.000
GSM-4550-20	45.0	50.0	20.0			50.000	50.025	44.938	45.000
GSM-4550-22	45.0	50.0	22.0			50.000	50.025	44.938	45.000
GSM-4550-30	45.0	50.0	30.0			50.000	50.025	44.938	45.000
GSM-4550-38	45.0	50.0	38.0			50.000	50.025	44.938	45.000
GSM-4550-40	45.0	50.0	40.0			50.000	50.025	44.938	45.000
GSM-4550-50	45.0	50.0	50.0			50.000	50.025	44.938	45.000
GSM-5053-25	50.0	53.0	25.0			50.050	50.150	53.000	53.030
GSM-5053-50	50.0	53.0	50.0	53.000	53.030			49.938	50.000
GSM-5055-20	50.0	55.0	20.0	50.050	50.150	55.000	55.030	49.938	50.000
GSM-5055-25	50.0	55.0	25.0			55.000	55.030	49.938	50.000
GSM-5055-30	50.0	55.0	30.0			55.000	55.030	49.938	50.000
GSM-5055-40	50.0	55.0	40.0			55.000	55.030	49.938	50.000
GSM-5055-50	50.0	55.0	50.0			55.000	55.030	49.938	50.000
GSM-5055-60	50.0	55.0	60.0			55.000	55.030	49.938	50.000
GSM-5257-20	52.0	57.0	20.0	52.060	52.180	57.000	57.030	51.926	52.000

iglide® G300 - Product Range

Sleeve bearing - Metric

 iglide®
G300

Order key

Type		Dimensions		
G	S	M	-01	03-02
iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)
				Length b1 (mm)

 For tolerance values
please refer to page 87

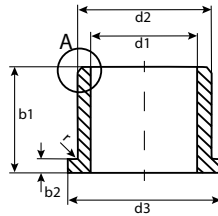
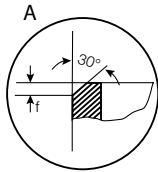
 Dimensions according to ISO 3547-1 and special dimensions
 *Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
GSM-5560-20	55.0	60.0	20.0	55.060	55.180	60.000	60.030	54.926	55.000
GSM-5560-40	55.0	60.0	40.0			60.000	60.030	54.926	55.000
GSM-5560-50	55.0	60.0	50.0			60.000	60.030	54.926	55.000
GSM-5560-60	55.0	60.0	60.0			60.000	60.030	54.926	55.000
GSM-6065-30	60.0	65.0	30.0	60.060	60.180	65.000	65.030	59.926	60.000
GSM-6065-40	60.0	65.0	40.0			65.000	65.030	59.926	60.000
GSM-6065-50	60.0	65.0	50.0			65.000	65.030	59.926	60.000
GSM-6065-60	60.0	65.0	60.0			65.000	65.030	59.926	60.000
GSM-6065-70	60.0	65.0	70.0			65.000	65.030	59.926	60.000
GSM-6267-35	62.0	67.0	35.0	62.060	62.180	67.000	67.030	61.926	62.000
GSM-6267-70	62.0	67.0	70.0			67.000	67.030	61.926	62.000
GSM-6267-72	62.0	67.0	72.0			67.000	67.030	61.926	62.000
GSM-6570-30	65.0	70.0	30.0	65.060	65.180	70.000	70.030	64.926	65.000
GSM-6570-50	65.0	70.0	50.0			70.000	70.030	64.926	65.000
GSM-7075-60	70.0	75.0	60.0	70.060	70.180	75.000	75.030	69.926	70.000
GSM-7277-76	72.0	77.0	76.0	72.060	72.180	77.000	77.030	71.926	72.000
GSM-7277-78	72.0	77.0	78.0			77.000	77.030	71.926	72.000
GSM-7580-40	75.0	80.0	40.0	75.060	75.180	80.000	80.030	74.926	75.000
GSM-7580-60	75.0	80.0	60.0			80.000	80.030	74.926	75.000
GSM-8085-60	80.0	85.0	60.0	80.060	80.180	85.000	85.035	79.926	80.000
GSM-8085-100	80.0	85.0	100.0			85.000	85.035	79.926	80.000
GSM-8590-100	85.0	90.0	100.0	85.072	85.212	90.000	90.035	84.913	85.000
GSM-9095-100	90.0	95.0	100.0	90.072	90.212	95.000	95.035	89.913	90.000
GSM-95100-100	95.0	100.0	100.0	95.072	95.212	100.000	100.035	94.913	95.000
GSM-100105-30	100.0	105.0	30.0	100.072	100.212	105.000	105.035	99.913	100.000
GSM-100105-40	100.0	105.0	40.0			105.000	105.035	99.913	100.000
GSM-100105-100	100.0	105.0	100.0			105.000	105.035	99.913	100.000
GSM-110115-100	110.0	115.0	100.0	110.072	110.212	115.000	115.035	109.913	110.000
GSM-120125-100	120.0	125.0	100.0	120.072	120.212	125.000	125.040	119.913	120.000
GSM-125130-100	125.0	130.0	100.0	125.085	125.245	130.000	130.040	124.900	125.000
GSM-130135-100	130.0	135.0	100.0	130.085	130.245	135.000	135.040	129.900	130.000
GSM-135140-80	135.0	140.0	80.0	135.085	135.245	140.000	140.040	134.900	135.000
GSM-140145-100	140.0	145.0	100.0	140.085	140.245	145.000	145.040	139.900	140.000
GSM-150155-100	150.0	155.0	100.0	150.085	150.245	155.000	155.040	149.900	150.000

iglide®
G300

iglide® G300 - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
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G F M -01 03-02

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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 $r = \max. 0.5$

 For tolerance values
please refer to page 87

Dimensions according to ISO 3547-1 and special dimensions

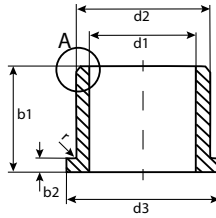
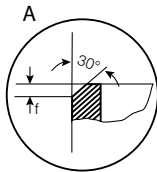
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
GFM-0304-02	3.0	4.5	7.5	2.0	0.75	3.014	3.054	4.500	4.512	2.975	3.000
GFM-0304-0275	3.0	4.5	7.0	2.75	0.75			4.500	4.512	2.975	3.000
GFM-0304-03	3.0	4.5	7.5	3.0	0.75			4.500	4.512	2.975	3.000
GFM-0304-05	3.0	4.5	7.5	5.0	0.75			4.500	4.512	2.975	3.000
GFM-030407-05	3.0	4.5	7.0	5.0	0.75			4.500	4.512	2.975	3.000
GFM-0405-03	4.0	5.5	9.5	3.0	0.75	4.020	4.068	5.500	5.512	3.970	4.000
GFM-0405-04	4.0	5.5	9.5	4.0	0.75			5.500	5.512	3.970	4.000
GFM-0405-06	4.0	5.5	9.5	6.0	0.75			5.500	5.512	3.970	4.000
GFM-040508-10	4.0	5.5	8.0	10.0	0.75			5.500	5.512	3.970	4.000
GFM-0506-035	5.0	6.0	10.0	3.5	0.5	5.010	5.040	6.000	6.012	4.970	5.000
GFM-0506-04	5.0	6.0	10.0	4.0	0.5			6.000	6.012	4.970	5.000
GFM-0506-05	5.0	6.0	10.0	5.0	0.5			6.000	6.012	4.970	5.000
GFM-0506-06	5.0	6.0	10.0	6.0	0.5			6.000	6.012	4.970	5.000
GFM-0506-15	5.0	6.0	10.0	15.25	0.5			6.000	6.012	4.970	5.000
GFM-0507-03	5.0	7.0	11.0	3.5	1.0	5.020	5.068	7.000	7.015	4.970	5.000
GFM-0507-04	5.0	7.0	11.0	4.0	1.0			7.000	7.015	4.970	5.000
GFM-0507-05	5.0	7.0	11.0	5.0	1.0			7.000	7.015	4.970	5.000
GFM-0507-07	5.0	7.0	11.0	7.0	1.0			7.000	7.015	4.970	5.000
GFM-0507-11	5.0	7.0	11.0	11.0	1.0			7.000	7.015	4.970	5.000
GFM-0507-30	5.0	7.0	11.0	30.0	1.0			7.000	7.015	4.970	5.000
GFM-050715-04	5.0	7.0	15.0	4.0	1.0			7.000	7.015	4.970	5.000
GFM-050709-05	5.0	7.0	9.0	5.0	1.0			7.000	7.015	4.970	5.000
GFM-0607-06	6.0	7.0	11.0	6.0	0.5	6.010	6.040	7.000	7.015	5.970	6.000
GFM-0607-10	6.0	7.0	11.0	10.0	0.5			7.000	7.015	5.970	6.000
GFM-0607-024	6.0	7.0	11.0	2.4	0.5			7.000	7.015	5.970	6.000
GFM-0608-04	6.0	8.0	12.0	4.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
GFM-0608-048	6.0	8.0	12.0	4.8	1.0			8.000	8.015	5.970	6.000
GFM-0608-05	6.0	8.0	12.0	5.0	1.0			8.000	8.015	5.970	6.000
GFM-0608-06	6.0	8.0	12.0	6.0	1.0			8.000	8.015	5.970	6.000
GFM-0608-07	6.0	8.0	12.0	7.0	1.0			8.000	8.015	5.970	6.000
GFM-0608-08	6.0	8.0	12.0	8.0	1.0			8.000	8.015	5.970	6.000
GFM-0608-10	6.0	8.0	12.0	10.0	1.0			8.000	8.015	5.970	6.000
GFM-060810-08	6.0	8.0	10.0	8.0	1.0			8.000	8.015	5.970	6.000
GFM-060812-20	6.0	8.0	12.0	20.0	1.0			8.000	8.015	5.970	6.000
GFM-060814-12	6.0	8.0	14.0	12.0	1.0			8.000	8.015	5.970	6.000
GFM-0608-25	6.0	8.0	12.0	25.0	1.0			8.000	8.015	5.970	6.000
GFM-0608-35	6.0	8.0	12.0	35.0	1.0			8.000	8.015	5.970	6.000

iglide® G300 - Product Range

Flange bearing - Metric

iglide®
G300



Order key

Type **G** Dimensions **F M -01 03-02**

iglide® material
Form F (flange)
Metric
Inner-Ø d1 (mm)
Outer-Ø d2 (mm)
Length b1 (mm)

$r = \max. 0.5$

For tolerance values
please refer to page 87

Dimensions according to ISO 3547-1 and special dimensions

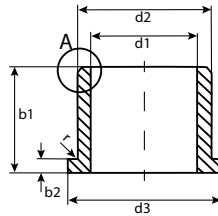
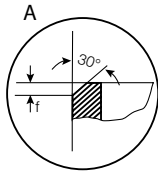
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
GFM-0708-03	7.0	8.0	12.0	3.0	0.5	7.013	7.049	8.000	8.015	6.964	7.000
GFM-0708-06	7.0	8.0	12.0	6.0	0.5			8.000	8.015	6.964	7.000
GFM-0708-08	7.0	8.0	12.0	8.0	0.5			8.000	8.015	6.964	7.000
GFM-0709-03.5	7.0	9.0	15.0	3.5	1.0	7.025	7.083	9.000	9.015	6.964	7.000
GFM-0709-06	7.0	9.0	15.0	6.0	1.0			9.000	9.015	6.964	7.000
GFM-0709-10	7.0	9.0	15.0	10.0	1.0			9.000	9.015	6.964	7.000
GFM-0709-12	7.0	9.0	15.0	12.0	1.0			9.000	9.015	6.964	7.000
GFM-070919-10	7.0	9.0	19.0	10.0	1.0			9.000	9.015	6.964	7.000
GFM-0809-03	8.0	9.0	15.0	3.0	0.5			8.013	8.049	9.000	9.015
GFM-0809-035	8.0	9.0	13.0	3.5	0.5	9.000	9.015			7.964	8.000
GFM-0809-055	8.0	9.0	13.0	5.5	0.5	9.000	9.015			7.964	8.000
GFM-0809-08	8.0	9.0	13.0	8.0	0.5	9.000	9.015			7.964	8.000
GFM-0809-12	8.0	9.0	13.0	12.0	0.5	9.000	9.015			7.964	8.000
GFM-0810-02	8.0	10.0	15.0	2.7	1.0	8.025	8.083	10.000	10.015	7.964	8.000
GFM-0810-03	8.0	10.0	15.0	3.0	1.0			10.000	10.015	7.964	8.000
GFM-0810-035	8.0	10.0	15.0	3.5	1.0			10.000	10.015	7.964	8.000
GFM-0810-04	8.0	10.0	15.0	4.0	1.0			10.000	10.015	7.964	8.000
GFM-0810-05	8.0	10.0	15.0	5.5	1.0			10.000	10.015	7.964	8.000
GFM-0810-06	8.0	10.0	15.0	6.0	1.0			10.000	10.015	7.964	8.000
GFM-0810-065	8.0	10.0	15.0	6.5	1.0			10.000	10.015	7.964	8.000
GFM-0810-07	8.0	10.0	15.0	7.5	1.0			10.000	10.015	7.964	8.000
GFM-0810-09	8.0	10.0	15.0	9.5	1.0			10.000	10.015	7.964	8.000
GFM-0810-10	8.0	10.0	15.0	10.0	1.0			10.000	10.015	7.964	8.000
GFM-0810-11	8.0	10.0	15.0	11.0	1.0			10.000	10.015	7.964	8.000
GFM-0810-15	8.0	10.0	15.0	15.0	1.0			10.000	10.015	7.964	8.000
GFM-0810-25	8.0	10.0	15.0	25.0	1.0			10.000	10.015	7.964	8.000
GFM-0810-30	8.0	10.0	15.0	30.0	1.0			10.000	10.015	7.964	8.000
GFM-081013-08	8.0	10.0	13.0	8.0	1.0			10.000	10.015	7.964	8.000
GFM-081014-05	8.0	10.0	14.0	5.0	1.0			10.000	10.015	7.964	8.000
GFM-081014-06	8.0	10.0	14.0	6.0	1.0			10.000	10.015	7.964	8.000
GFM-081014-08	8.0	10.0	14.0	8.0	1.0			10.000	10.015	7.964	8.000
GFM-081014-10	8.0	10.0	14.0	10.0	1.0			10.000	10.015	7.964	8.000
GFM-081016-11	8.0	10.0	16.0	11.0	1.0			10.000	10.015	7.964	8.000
GFM-081016-15	8.0	10.0	16.0	15.0	1.0			10.000	10.015	7.964	8.000
GFM-081017-15	8.0	10.0	17.0	15.0	1.0	10.000	10.015	7.964	8.000		
GFM-0811-07	8.0	11.0	18.0	7.0	1.0	8.150	8.210	11.000	11.018	8.089	8.125
GFM-0910-065	9.0	10.0	15.0	6.5	0.5	9.013	9.049	10.000	10.015	8.964	9.000

iglide®
G300

iglide® G300 - Product Range

Flange bearing - Metric



Order key

Type	Dimensions
G F M -01 03-02	
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

r = max. 0.5

For tolerance values please refer to page 87

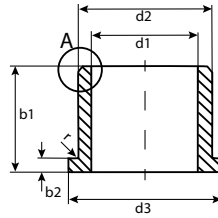
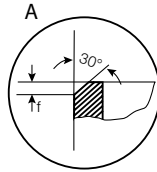
Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
GFM-0910-17	9.0	10.0	15.0	17.5	0.5	9.013	9.049	10.000	10.015	9.964	9.000
GFM-1011-026	10.0	11.0	15.0	2.6	0.5	10.013	10.049	11.000	11.015	9.964	10.000
GFM-1011-03	10.0	11.0	15.0	3.5	0.5			11.000	11.015	9.964	10.000
GFM-1011-044	10.0	11.0	15.0	4.4	0.5			11.000	11.015	9.964	10.000
GFM-1011-10	10.0	11.0	15.0	10.0	0.5			11.000	11.015	9.964	10.000
GFM-1012-035	10.0	12.0	18.0	3.5	1.0	10.025	10.083	12.000	12.018	9.964	10.000
GFM-1012-04	10.0	12.0	18.0	4.0	1.0			12.000	12.018	9.964	10.000
GFM-1012-05	10.0	12.0	18.0	5.0	1.0			12.000	12.018	9.964	10.000
GFM-1012-06	10.0	12.0	18.0	6.0	1.0			12.000	12.018	9.964	10.000
GFM-101214-06	10.0	12.0	14.0	6.0	1.0			12.000	12.018	9.964	10.000
GFM-1012-07	10.0	12.0	18.0	7.0	1.0			12.000	12.018	9.964	10.000
GFM-1012-09	10.0	12.0	18.0	9.0	1.0			12.000	12.018	9.964	10.000
GFM-1012-10	10.0	12.0	18.0	10.0	1.0			12.000	12.018	9.964	10.000
GFM-1012-12	10.0	12.0	18.0	12.0	1.0			12.000	12.018	9.964	10.000
GFM-1012-15	10.0	12.0	18.0	15.0	1.0			12.000	12.018	9.964	10.000
GFM-1012-17	10.0	12.0	18.0	17.0	1.0			12.000	12.018	9.964	10.000
GFM-101216-06	10.0	12.0	16.0	6.0	1.0			12.000	12.018	9.964	10.000
GFM-101214-07	10.0	12.0	14.0	7.0	1.0			12.000	12.018	9.964	10.000
GFM-101216-09	10.0	12.0	16.0	9.0	1.0			12.000	12.018	9.964	10.000
GFM-101216-10	10.0	12.0	16.0	10.0	1.0			12.000	12.018	9.964	10.000
GFM-101215-12	10.0	12.0	15.0	12.0	1.0			12.000	12.018	9.964	10.000
GFM-101216-15	10.0	12.0	16.0	15.0	1.0	12.000	12.018	9.964	10.000		
GFM-1013-12	10.0	13.0	20.0	12.0	1.5	10.025	10.083	13.000	13.018	9.964	10.000
GFM-111320-037	11.0	13.0	20.0	3.7	1.0	11.032	11.102	13.000	13.018	10.957	11.000
GFM-1213-03	12.0	13.0	17.0	3.0	0.5	12.016	12.059	13.000	13.018	11.957	12.000
GFM-1213-12	12.0	13.0	17.0	12.0	0.5			13.000	13.018	11.957	12.000
GFM-121315-12	12.0	13.0	15.0	12.0	1.0			13.000	13.018	11.957	12.000
GFM-1214-03	12.0	14.0	20.0	3.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
GFM-1214-05	12.0	14.0	20.0	5.0	1.0			14.000	14.018	11.957	12.000
GFM-1214-06	12.0	14.0	20.0	6.0	1.0			14.000	14.018	11.957	12.000
GFM-1214-07	12.0	14.0	20.0	7.0	1.0			14.000	14.018	11.957	12.000
GFM-1214-09	12.0	14.0	20.0	9.0	1.0			14.000	14.018	11.957	12.000
GFM-1214-10	12.0	14.0	20.0	10.0	1.0			14.000	14.018	11.957	12.000
GFM-1214-11	12.0	14.0	20.0	11.0	1.0			14.000	14.018	11.957	12.000
GFM-1214-12	12.0	14.0	20.0	12.0	1.0			14.000	14.018	11.957	12.000
GFM-1214-15	12.0	14.0	20.0	15.0	1.0			14.000	14.018	11.957	12.000
GFM-1214-17	12.0	14.0	20.0	17.0	1.0			14.000	14.018	11.957	12.000

iglide® G300 - Product Range

Flange bearing - Metric

 iglide®
G300

Order key

Type	Dimensions
G F M	-01 03-02

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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 $r = \max. 0.5$

 For tolerance values
please refer to page 87

Dimensions according to ISO 3547-1 and special dimensions

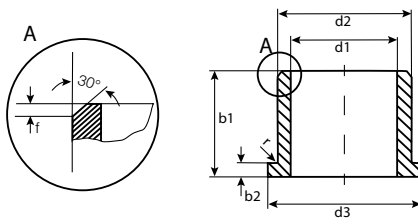
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
GFM-1214-20	12.0	14.0	20.0	20.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
GFM-1214-24	12.0	14.0	20.0	24.0	1.0			14.000	14.018	11.957	12.000
GFM-1214-31	12.0	14.0	20.0	31.0	1.0			14.000	14.018	11.957	12.000
GFM-1214-40	12.0	14.0	20.0	40.0	1.0			14.000	14.018	11.957	12.000
GFM-121416-034	12.0	14.0	16.0	3.4	1.0			14.000	14.018	11.957	12.000
GFM-121418-04	12.0	14.0	18.0	4.0	1.0			14.000	14.018	11.957	12.000
GFM-121418-08	12.0	14.0	18.0	8.0	1.0			14.000	14.018	11.957	12.000
GFM-121418-10	12.0	14.0	18.0	10.0	1.0			14.000	14.018	11.957	12.000
GFM-121418-12	12.0	14.0	18.0	12.0	1.0			14.000	14.018	11.957	12.000
GFM-121418-15	12.0	14.0	18.0	15.0	1.0			14.000	14.018	11.957	12.000
GFM-121418-20	12.0	14.0	18.0	20.0	1.0	14.000	14.018	11.957	12.000		
GFM-1315-06	13.0	15.0	22.0	6.0	1.0	13.032	13.102	15.000	15.018	12.957	13.000
GFM-1315-08	13.0	15.0	22.0	8.0	1.0			15.000	15.018	12.957	13.000
GFM-1416-03	14.0	16.0	22.0	3.0	1.0	14.032	14.102	16.000	16.018	13.957	14.000
GFM-1416-04	14.0	16.0	22.0	4.0	1.0			16.000	16.018	13.957	14.000
GFM-1416-05	14.0	16.0	22.0	5.0	1.0			16.000	16.018	13.957	14.000
GFM-1416-06	14.0	16.0	22.0	6.0	1.0			16.000	16.018	13.957	14.000
GFM-1416-08	14.0	16.0	22.0	8.0	1.0			16.000	16.018	13.957	14.000
GFM-1416-10	14.0	16.0	22.0	10.0	1.0			16.000	16.018	13.957	14.000
GFM-1416-12	14.0	16.0	22.0	12.0	1.0			16.000	16.018	13.957	14.000
GFM-1416-17	14.0	16.0	22.0	17.0	1.0			16.000	16.018	13.957	14.000
GFM-1416-21	14.0	16.0	22.0	21.0	1.0			16.000	16.018	13.957	14.000
GFM-141624-16	14.0	16.0	24.0	16.0	1.0			16.000	16.018	13.957	14.000
GFM-1516-02	15.0	16.0	20.0	2.0	0.5	15.016	15.059	16.000	16.018	14.957	15.000
GFM-1516-025	15.0	16.0	20.0	2.5	0.5			16.000	16.018	14.957	15.000
GFM-1516-03	15.0	16.0	20.0	3.0	0.5			16.000	16.018	14.957	15.000
GFM-1516-15	15.0	16.0	20.0	15.0	0.5			16.000	16.018	14.957	15.000
GFM-1517-04	15.0	17.0	23.0	4.0	1.0	15.032	15.102	17.000	17.018	14.957	15.000
GFM-1517-045	15.0	17.0	23.0	4.5	1.0			17.000	17.018	14.957	15.000
GFM-1517-05	15.0	17.0	23.0	5.0	1.0			17.000	17.018	14.957	15.000
GFM-1517-09	15.0	17.0	23.0	9.0	1.0			17.000	17.018	14.957	15.000
GFM-1517-12	15.0	17.0	23.0	12.0	1.0			17.000	17.018	14.957	15.000
GFM-1517-17	15.0	17.0	23.0	17.0	1.0			17.000	17.018	14.957	15.000
GFM-1517-20	15.0	17.0	23.0	20.0	1.0			17.000	17.018	14.957	15.000
GFM-151824-32	15.0	18.0	24.0	32.0	1.5			15.032	15.102	18.000	18.018
GFM-1618-04	16.0	18.0	24.0	4.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
GFM-1618-06	16.0	18.0	24.0	6.0	1.0			18.000	18.018	15.957	16.000

iglide®
G300

iglide® G300 - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
G F M -01 03-02	
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 $r = \max. 0.5$

 For tolerance values
please refer to page 87

Dimensions according to ISO 3547-1 and special dimensions

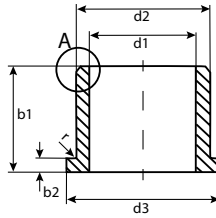
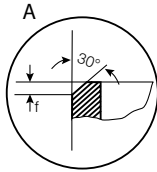
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
GFM-1618-09	16.0	18.0	24.0	9.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
GFM-1618-12	16.0	18.0	24.0	12.0	1.0			18.000	18.018	15.957	16.000
GFM-1618-17	16.0	18.0	24.0	17.0	1.0			18.000	18.018	15.957	16.000
GFM-1618-21	16.0	18.0	24.0	21.0	1.0			18.000	18.018	15.957	16.000
GFM-1622-12	16.0	22.0	25.0	12.0	1.0	16.032	16.102	22.000	22.021	15.957	16.000
GFM-1719-09	17.0	19.0	25.0	9.0	1.0	17.032	17.102	19.000	19.021	16.957	17.000
GFM-1719-16	17.0	19.0	25.0	16.0	1.0			19.000	19.021	16.957	17.000
GFM-1719-25	17.0	19.0	25.0	25.0	1.0			19.000	19.021	16.957	17.000
GFM-1820-04	18.0	20.0	26.0	4.0	1.0	18.032	18.102	20.000	20.021	17.957	18.000
GFM-1820-06	18.0	20.0	26.0	6.0	1.0			20.000	20.021	17.957	18.000
GFM-1820-09	18.0	20.0	26.0	9.0	1.0			20.000	20.021	17.957	18.000
GFM-1820-11	18.0	20.0	26.0	11.0	1.0			20.000	20.021	17.957	18.000
GFM-1820-12	18.0	20.0	26.0	12.0	1.0			20.000	20.021	17.957	18.000
GFM-1820-17	18.0	20.0	26.0	17.0	1.0			20.000	20.021	17.957	18.000
GFM-1820-22	18.0	20.0	26.0	22.0	1.0			20.000	20.021	17.957	18.000
GFM-1820-30	18.0	20.0	26.0	30.0	1.0			20.000	20.021	17.957	18.000
GFM-1820-32	18.0	20.0	26.0	32.0	1.0			20.000	20.021	17.957	18.000
GFM-182022-06	18.0	20.0	22.0	6.0	1.0			22.000	22.021	17.957	18.000
GFM-1822-28	18.0	22.0	26.0	28.0	2.0			18.032	18.102	22.000	22.021
GFM-2021-035	20.0	21.0	25.0	3.5	0.5	20.020	20.072	21.000	21.021	19.948	20.000
GFM-2021-15	20.0	21.0	25.0	15.0	0.5			21.000	21.021	19.948	20.000
GFM-2021-20	20.0	21.0	25.0	20.0	0.5			21.000	21.021	19.948	20.000
GFM-2023-07	20.0	23.0	30.0	7.0	1.5	20.040	20.124	23.000	23.021	19.948	20.000
GFM-2023-11	20.0	23.0	30.0	11.5	1.5			23.000	23.021	19.948	20.000
GFM-2023-16	20.0	23.0	30.0	16.5	1.5			23.000	23.021	19.948	20.000
GFM-2023-21	20.0	23.0	30.0	21.5	1.5			23.000	23.021	19.948	20.000
GFM-202329-20	20.0	23.0	30.0	20.0	1.5			23.000	23.021	19.948	20.000
GFM-202326-21	20.0	23.0	26.0	21.0	1.5			23.000	23.021	19.948	20.000
GFM-202328-15	20.0	23.0	28.0	15.0	1.5			23.000	23.021	19.948	20.000
GFM-2427-07	24.0	27.0	32.0	7.0	1.5	24.040	24.124	27.000	27.021	23.948	24.000
GFM-2427-10	24.0	27.0	32.0	10.5	1.5	27.000	27.021	23.948	24.000		
GFM-2526-25	25.0	26.0	30.0	25.0	0.5	25.020	25.072	26.000	26.021	24.948	25.000
GFM-2527-48	25.0	27.0	32.0	48.0	1.0	25.040	25.124	27.000	27.021	24.948	25.000
GFM-2528-11	25.0	28.0	35.0	11.5	1.5	25.040	25.124	28.000	28.021	24.948	25.000
GFM-2528-16	25.0	28.0	35.0	16.5	1.5			28.000	28.021	24.948	25.000
GFM-2528-21	25.0	28.0	35.0	21.5	1.5			28.000	28.021	24.948	25.000
GFM-2630-12	26.0	30.0	37.0	12.0	2.0	26.040	26.124	30.000	30.021	25.948	26.000

iglide® G300 - Product Range

Flange bearing - Metric

iglide®
G300



Order key

Type **G** Dimensions **F M-01 03-02**

iglide® material
Form F (flange)
Metric
Inner-Ø d1 (mm)
Outer-Ø d2 (mm)
Length b1 (mm)

$r = \max. 0.5$

For tolerance values
please refer to page 87

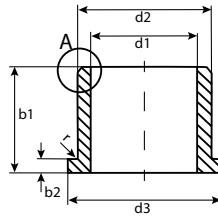
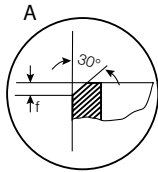
Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
GFM-2730-20	27.0	30.0	35.0	20.0	1.5	27.040	27.124	30.000	30.021	26.948	27.000
GFM-2830-10	28.0	30.0	35.0	10.0	1.0	28.040	28.124	30.000	30.021	27.948	28.000
GFM-2830-36	28.0	30.0	35.0	36.0	1.0			30.000	30.021	27.948	28.000
GFM-2830-48	28.0	30.0	35.0	48.0	1.0			30.000	30.021	27.948	28.000
GFM-283239-20	28.0	32.0	39.0	20.0	2.0	28.040	28.124	32.000	32.025	27.948	28.000
GFM-3031-20	30.0	31.0	36.0	20.0	0.5	30.040	30.124	31.000	31.025	29.948	30.000
GFM-3031-30	30.0	31.0	35.0	30.0	0.5			31.000	31.025	29.948	30.000
GFM-3032-04	30.0	32.0	37.0	4.0	1.0	30.040	30.124	32.000	32.025	29.948	30.000
GFM-3032-12	30.0	32.0	37.0	12.0	1.0			32.000	32.025	29.948	30.000
GFM-3032-17	30.0	32.0	37.0	17.5	1.0			32.000	32.025	29.948	30.000
GFM-3032-22	30.0	32.0	37.0	22.0	1.0			32.000	32.025	29.948	30.000
GFM-3034-09	30.0	34.0	42.0	9.0	2.0	30.040	30.124	34.000	34.025	29.948	30.000
GFM-3034-16	30.0	34.0	42.0	16.0	2.0			34.000	34.025	29.948	30.000
GFM-3034-20	30.0	34.0	42.0	20.0	2.0			34.000	34.025	29.948	30.000
GFM-3034-26	30.0	34.0	42.0	26.0	2.0			34.000	34.025	29.940	30.000
GFM-3034-37	30.0	34.0	42.0	37.0	2.0			34.000	34.025	29.948	30.000
GFM-303440-10	30.0	34.0	40.0	10.0	2.0			34.000	34.025	29.948	30.000
GFM-3236-16	32.0	36.0	40.0	16.0	2.0	32.050	32.150	36.000	36.025	31.938	32.000
GFM-3236-26	32.0	36.0	40.0	26.0	2.0			36.000	36.025	31.938	32.000
GFM-343850-35	34.0	38.0	50.0	35.0	2.0	34.050	34.150	38.000	38.025	34.938	34.000
GFM-3539-058	35.0	39.0	47.0	5.8	2.0	35.050	35.150	39.000	39.025	34.938	35.000
GFM-3539-07	35.0	39.0	47.0	7.0	2.0			39.000	39.025	34.938	35.000
GFM-3539-16	35.0	39.0	47.0	16.0	2.0			39.000	39.025	34.938	35.000
GFM-3539-26	35.0	39.0	47.0	26.0	2.0			39.000	39.025	34.938	35.000
GFM-3539-36	35.0	39.0	47.0	36.0	2.0			39.000	39.025	34.938	35.000
GFM-354051-30	35.0	40.0	51.0	30.0	2.5	35.050	35.150	40.000	40.025	34.938	35.000
GFM-3842-22	38.0	42.0	54.0	22.0	2.0	38.050	38.150	42.000	42.025	37.938	38.000
GFM-4044-07	40.0	44.0	52.0	7.0	2.0	40.050	40.150	44.000	44.025	39.938	40.000
GFM-4044-14	40.0	44.0	52.0	14.0	2.0			44.000	44.025	39.938	40.000
GFM-4044-20	40.0	44.0	52.0	20.0	2.0			44.000	44.025	39.938	40.000
GFM-4044-30	40.0	44.0	52.0	30.0	2.0			44.000	44.025	39.938	40.000
GFM-4044-40	40.0	44.0	52.0	40.0	2.0			44.000	44.025	39.938	40.000
GFM-4044-50	40.0	44.0	52.0	50.0	2.0			44.000	44.025	39.938	40.000
GFM-4246-19	42.0	46.0	53.0	19.0	2.0	42.050	42.150	46.000	46.025	41.938	42.000
GFM-4550-30	45.0	50.0	58.0	30.0	2.0	45.050	45.150	50.000	50.025	44.938	45.000
GFM-4550-50	45.0	50.0	58.0	50.0	2.0			50.000	50.025	44.938	45.000
GFM-5055-07	50.0	55.0	63.0	7.0	2.0	50.050	50.150	55.000	55.030	49.938	50.000

iglide®
G300

iglide® G300 - Product Range

Flange bearing - Metric



Order key

Type	Dimensions
G F M	-01 03-02
iglide® material	Form F (flange)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

$r = \max. 0.5$

For tolerance values please refer to page 87

Dimensions according to ISO 3547-1 and special dimensions

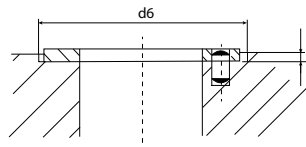
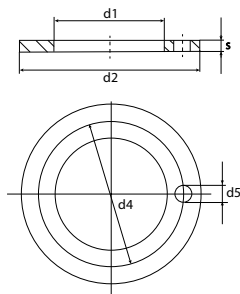
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
GFM-5055-10	50.0	55.0	63.0	10.0	2.0	50.050	50.150	55.000	55.030	49.938	50.000
GFM-5055-18	50.0	55.0	63.0	18.0	2.0			55.000	55.030	49.938	50.000
GFM-5055-25	50.0	55.0	63.0	25.0	2.0			55.000	55.030	49.938	50.000
GFM-5055-40	50.0	55.0	63.0	40.0	2.0			55.000	55.030	49.938	50.000
GFM-5055-50	50.0	55.0	63.0	50.0	2.0			55.000	55.030	49.938	50.000
GFM-6065-07	60.0	65.0	73.0	7.0	2.0	60.060	60.180	65.000	65.030	59.926	60.000
GFM-6065-22	60.0	65.0	73.0	22.0	2.0			65.000	65.030	59.926	60.000
GFM-6065-30	60.0	65.0	73.0	30.0	2.0			65.000	65.030	59.926	60.000
GFM-6065-50	60.0	65.0	73.0	50.0	2.0			65.000	65.030	59.926	60.000
GFM-606580-62	60.0	65.0	80.0	62.0	2.0			65.000	65.030	59.926	60.000
GFM-6570-50	65.0	70.0	78.0	50.0	2.0	65.060	65.180	70.000	70.030	64.926	65.000
GFM-7075-50	70.0	75.0	83.0	50.0	2.0	70.060	70.180	75.000	75.030	69.926	70.000
GFM-7580-50	75.0	80.0	88.0	50.0	2.0	75.060	75.180	80.000	80.030	74.926	75.000
GFM-8085-50	80.0	85.0	93.0	50.0	2.5	80.060	80.180	85.000	85.035	79.926	80.000
GFM-8085-100	80.0	85.0	93.0	100.0	2.5			85.000	85.035	79.926	80.000
GFM-8590-100	85.0	90.0	98.0	100.0	2.5	85.072	85.212	90.000	90.035	84.913	85.000
GFM-9095-100	90.0	95.0	103.0	100.0	2.5	90.072	90.212	95.000	95.035	89.913	90.000
GFM-95100-100	95.0	100.0	108.0	100.0	2.5	95.072	95.212	100.000	100.035	94.913	95.000
GFM-100105-42.5	100.0	105.0	113.0	42.5	2.5	100.072	100.212	105.000	105.035	99.913	100.000
GFM-100105-100	100.0	105.0	113.0	100.0	2.5			105.000	105.035	99.913	100.000
GFM-110115-100	110.0	115.0	123.0	100.0	2.5	110.072	110.212	115.000	115.035	109.913	110.000
GFM-120125-100	120.0	125.0	133.0	100.0	2.5	120.072	120.212	125.000	125.040	119.913	120.000
GFM-125130-100	125.0	130.0	138.0	100.0	2.5	125.085	125.245	130.000	130.040	124.900	125.000
GFM-130135-100	130.0	135.0	143.0	100.0	2.5	130.085	130.245	135.000	135.040	129.900	130.000
GFM-140145-100	140.0	145.0	153.0	100.0	2.5	140.085	140.245	145.000	145.040	139.900	140.000
GFM-150155-40	150.0	155.0	163.0	40.0	2.5	150.085	150.245	155.000	155.040	149.900	150.000
GFM-150155-100	150.0	155.0	163.0	100.0	2.5			155.000	155.040	149.900	150.000

iglide® G300 - Product Range

Thrust washer - Metric

iglide®
G300



Order key

Type

Dimensions

G T M -04 08 -005

iglide® material

Form T (washer)

Metric

Inner-Ø d1 (mm)

Outer-Ø d2 (mm)

Thickness s (mm)

Part Number	d1 +0.25	d2 -0.25	s -0.05	d4 -0.12 +0.12	d5 +0.375 +0.125	h +0.2 -0.2	d6 +0.12
GTM-0509-006	5.0	9.5	0.6	*	*	0.3	9.5
GTM-0615-015	6.0	15.0	1.5	*	*	1.0	15
GTM-0620-015	6.0	20.0	1.5	13.0	1.5	1.0	20
GTM-0713-005	7.0	13.0	0.5	*	*	0.2	13
GTM-0815-005	8.0	15.0	0.5	*	*	0.2	15
GTM-0815-015	8.0	15.0	1.5	11.5	*	1.0	15
GTM-0818-010	8.0	18.0	1.0	*	*	0.7	18
GTM-0818-015	8.0	18.0	1.5	13.0	1.5	1.0	18
GTM-0918-015	9.0	18.0	1.5	13.5	1.5	1.0	18
GTM-1018-010	10.0	18.0	1.0	*	*	0.7	18
GTM-1018-020	10.0	18.0	2.0	*	*	1.5	18
GTM-1224-015	12.0	24.0	1.5	18.0	1.5	1.0	24
GTM-1420-015	14.0	20.0	1.5	*	*	1.0	20
GTM-1426-015	14.0	26.0	1.5	20.0	2.0	1.0	26
GTM-1522-008	15.0	22.0	0.8	*	*	0.5	22
GTM-1524-015	15.0	24.0	1.5	19.5	1.5	1.0	24
GTM-1524-0275	15.0	24.0	2.75	*	*	2.0	24
GTM-1630-015	16.0	30.0	1.5	22.0	2.0	1.0	30
GTM-1832-015	18.0	32.0	1.5	25.0	2.0	1.0	32
GTM-2036-015	20.0	36.0	1.5	28.0	3.0	1.0	36
GTM-2238-015	22.0	38.0	1.5	30.0	3.0	1.0	38
GTM-2442-015	24.0	42.0	1.5	33.0	3.0	1.0	42
GTM-2644-015	26.0	44.0	1.5	35.0	3.0	1.0	44
GTM-2835-005	28.0	35.0	0.5	*	*	0.2	35
GTM-2848-015	28.0	48.0	1.5	38.0	4.0	1.0	48
GTM-3254-015	32.0	54.0	1.5	43.0	4.0	1.0	54
GTM-3862-015	38.0	62.0	1.5	50.0	4.0	1.0	62
GTM-4266-015	42.0	66.0	1.5	54.0	4.0	1.0	66
GTM-4874-020	48.0	74.0	2.0	61.0	4.0	1.5	74
GTM-5278-020	52.0	78.0	2.0	65.0	4.0	1.5	78
GTM-6290-020	62.0	90.0	2.0	76.0	4.0	1.5	90
GTM-6881-020	68.0	81.0	2.0	*	*	1.5	81

iglide®
G300

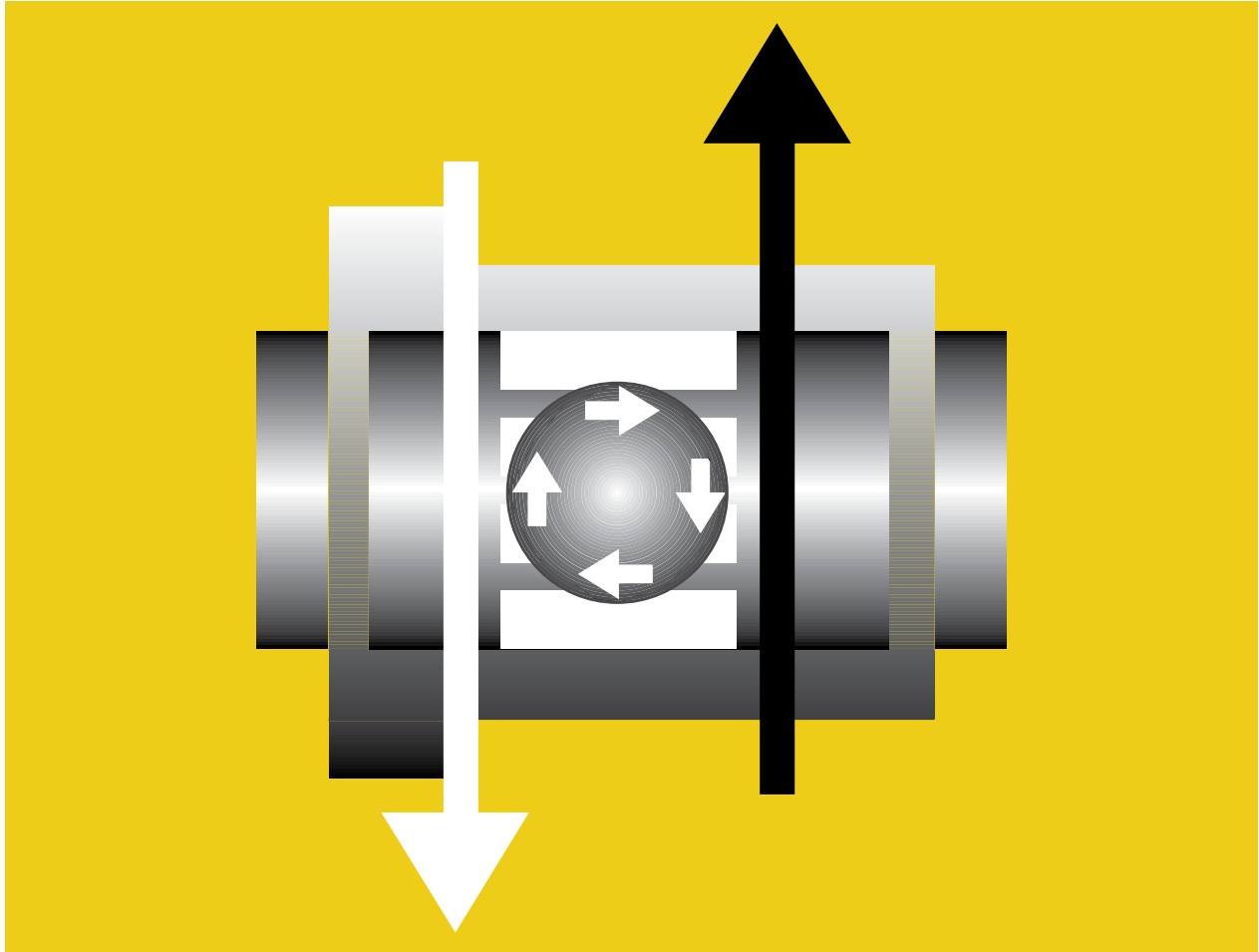
iglide® G300 - Notes

iglide® G300 - Notes

iglide®
G300

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G300

iglide® G300 - Notes



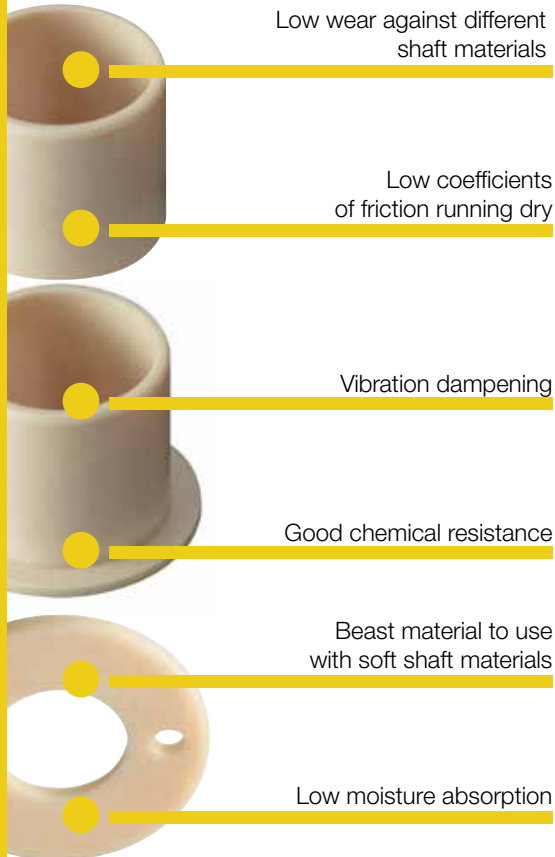
iglide® J

- Low wear against different shaft materials
- Low coefficients of friction running dry
- Vibration dampening
- Good chemical resistance
- Low moisture absorption

iglide®
J

iglide® J - The fast and slow motion specialist

Low friction, low wear



Low wear against different
shaft materials

Low coefficients
of friction running dry

Vibration dampening

Good chemical resistance

Best material to use
with soft shaft materials

Low moisture absorption

The iglide® J plain bearings are designed for the lowest coefficients of friction while running dry and their low stick-slip tendency. With a maximum permissible surface pressure of 5,076 psi iglide® J bearings are not suitable for extreme loads.



- For high speeds
- For highest wear resistance at low to medium pressures
- When very low coefficients of friction are necessary
- When a cost effective bearing for low pressure loads is needed



- When high pressure loads occur
 - iglide® G300
 - iglide® L280
- When short-term temperatures occur that are greater than 248°F
 - iglide® G300
 - iglide® Z
- When a low-cost bearing for occasional movements is necessary
 - iglide® G300



Available from stock

Detailed information about delivery time online.



max. +194°F
min. -58°F



Price breaks online

No minimum order.



Ø 1/8 to 2 inches
more dimensions on request



Typical application areas

- Automation
- Printing industry
- Cleanroom
- Aerospace engineering
- Beverage technology
- Automation



Ø 1.5 to 110 mm
more dimensions on request



iglide® J - Technical data

 iglide®
J

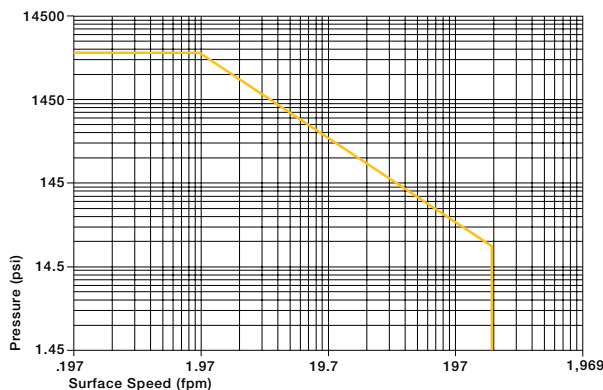
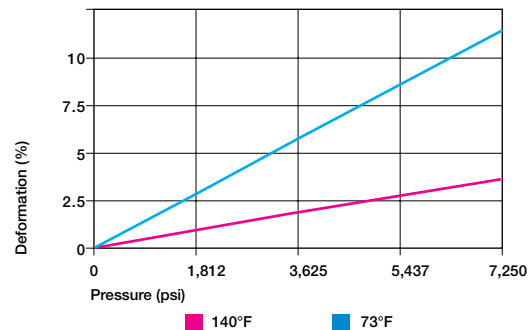
Material Properties Table

General Properties	Unit	iglide® J	Testing Method
Density	g/cm ³	1.49	
Color		yellow	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.3	DIN 53495
Max. moisture absorption	% weight	1.3	
Coefficient of friction, dynamic against steel	μ	0.06 - 0.18	
pv value, max. (dry)	psi x fpm	9,700	
Mechanical Properties			
Modulus of elasticity	psi	348,100	DIN 53457
Tensile strength at 68°F	psi	10,590	DIN 53452
Compressive strength	psi	8,702	
Permissible static surface pressure (68°F)	psi	5,076	
Shore D-hardness		74	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	194	
Max. application temperature, short-term	°F	248	
Min. application temperature	°F	-58	
Thermal conductivity	W/m x K	0.25	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	10	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹³	DIN IEC 93
Surface resistance	Ω	> 10 ¹²	DIN 53482

Compressive Strength

With a maximum permissible surface pressure of 5,075 psi, iglide® J plain bearings are not suited for extreme loads. The graph shows the elastic deformation of iglide® J for radial loads. At the maximum permissible load of 5,075 psi, the deformation is less than 2.5%.

► Compressive Strength, Page 63



Permissible pv value for iglide® J running dry against steel shaft, at 68°F

Permissible Surface Speeds

The low coefficient of friction and the extremely low stick-slip tendency of iglide® J plain bearings are especially important at very low speeds. However, iglide® J material can also be used for high speeds of over 197 fpm. In both cases, the static friction is very low and stick-slip does not occur. The maximum values given in the table can only be achieved at the lowest pressure loads. At the given speeds, friction can cause a temperature increase to maximum permissible levels. In practice, though, this temperature level is rarely reached, due to varying application conditions.

► Surface speed, Page 64

► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	295	590
Oscillating	216	413
Linear	1574	1968

Maximum surface speeds

iglide®
J

iglide® J - Technical data

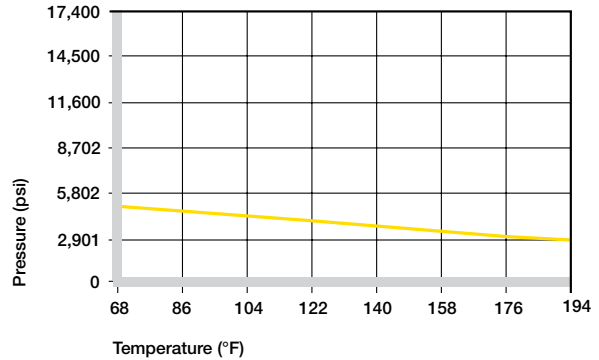
Temperatures

iglide® J plain bearings can be used between -58°F and 194°F; the short-term maximum permissible temperature is 248°F. The graph shows that the compressive strength of iglide® J plain bearings decreases with increasing temperatures. Also, the wear increases significantly above 176°F

► Application Temperatures, Page 67

iglide® J	Application Temperature
Minimum	- 58°F
Max. long-term	+194°F
Max. short-term	+248°F
Additional axial securing	+140°F

Temperature limits for iglide® J



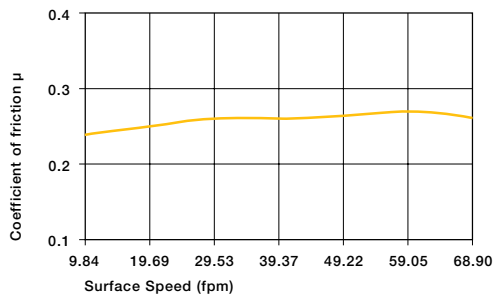
Recommended maximum permissible static surface pressure of iglide® J as a result of the temperature

Friction and Wear

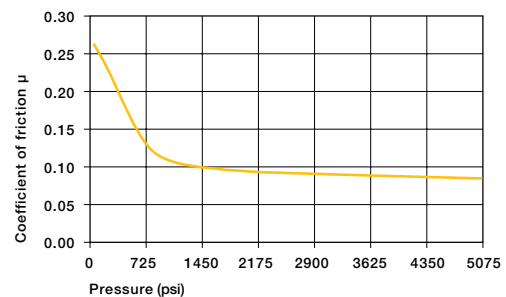
The graph to the right shows the coefficients of friction for different loads. The coefficient of friction level is very good for all loads with iglide® J. Friction and wear are also dependent, to a large extent, on the shafting partner. With increasing shaft roughness, the coefficient of friction also increases. For iglide® J a ground surface with an average roughness range of 4 - 12 rms is recommended for the shaft.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



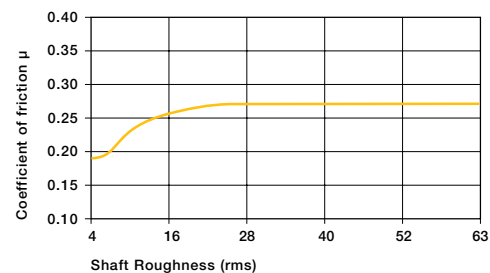
Coefficient of friction of iglide® J as a result of the surface speed; p = 108 psi



Coefficient of friction of iglide® J as a result of the load, v = 1.97 fpm

iglide® J	Coefficient of Friction
Dry	0.06 - 0.18
Grease	0.09
Oil	0.04
Water	0.04

Coefficients of friction for iglide® J against steel
(Shaft finish = 40 rms, 50 HRC)



Coefficient of friction of iglide® J as a result of the shaft surface (1050 hard chromed)

iglide® J - Technical data

iglide®
J

Shaft Materials

The graphs show results of testing different shaft materials with plain bearings made of iglide® J.

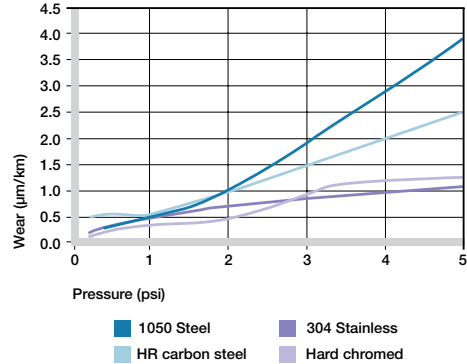
If iglide® J plain bearings are used in rotational applications with loads under 290 psi, several shaft materials are suitable. A Hard Chromed shaft provides the lowest wear in this range. When compared to most iglide® materials, iglide® J has very low wear results at low loads with all shaft materials tested.

Also, for increasing loads up to 725 psi, the wear resistance of iglide® J is excellent. Especially suitable is the combination of 303 stainless steel.

In oscillating operation with Cold Rolled Steel and HR Carbon Steel, the wear of iglide® J is slightly higher than for rotation. For oscillating movements with loads of 290 psi, iglide® J performs best with Cold Rolled Steel shaft.

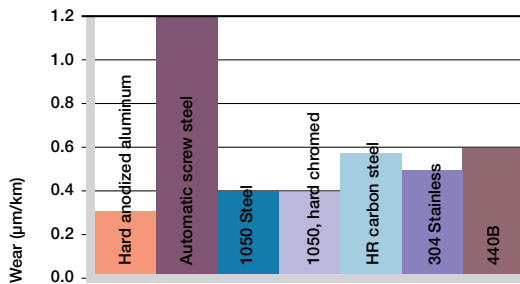
As shown in the graph, the difference in wear between rotation and oscillating movements is most significant for 303 stainless steel shafts.

If the shaft material you plan to use is not contained in this list, please contact us.

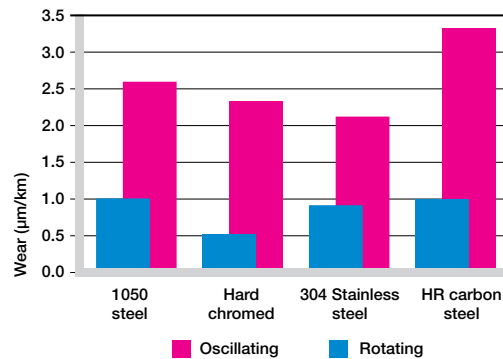


Wear of iglide® J, rotating application with different shaft materials, depending on load

► Shaft Materials, Page 71



Wear of iglide® J, rotating application with different shaft materials, p = 108 psi, v = 98 fpm

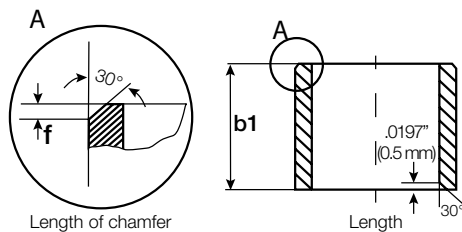


Wear for oscillating and rotating applications with different shaft materials under constant load p = 290 psi

Installation Tolerances

iglide® J plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

- Tolerance table, Page 75
- Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance

iglide® J plain bearings are resistant to diluted lyes and very weak acids, as well as fuels and all types of lubricants. The low moisture absorption also permits use in wet or damp environments. Plain bearings made of iglide® J are resistant to common cleaning agents used in the food industry. The moisture absorption of iglide® J plain bearings is 0.3% in standard atmosphere. The saturation limit in water is 1.3%. These values are so low that possible design changes due to absorption are only necessary in extreme cases.

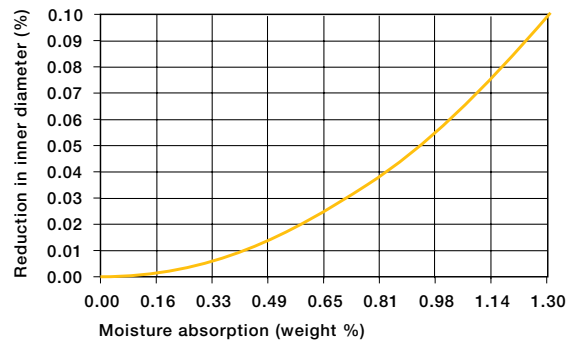
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to -
Strong acids	-
Weak alkaline	+
Strong alkaline	+ to 0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® J

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® J plain bearings

Radiation Resistance

Plain bearings made from iglide® J are resistant to radiation up to an intensity of 3×10^2 Gy.

UV-Resistance

iglide® J plain bearings become discolored under UV radiation. However, hardness, compressive strength and the wear resistance of the material do not change.

Vacuum

When used in a vacuum environment, the iglide® J plain bearings release moisture as a vapor. Therefore, only dehumidified bearings made of iglide® J are suitable for the vacuum environment.

Electrical Properties

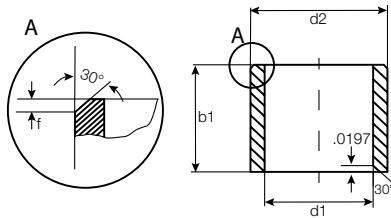
iglide® J plain bearings are electrically insulating.

iglide® J	
Specific volume resistance	> 10^{13} Ωcm
Surface resistance	> 10^{12} Ω

Electrical properties of iglide® G300

iglide® J - Product range

Sleeve bearing - Inch

 iglide®
J

Order key

Type	Dimensions
J S I -01 03-02	
iglide® material	Form S (sleeve)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

 For tolerance values
 please refer to page 119

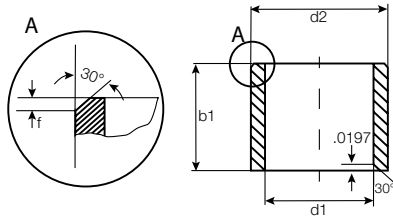
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
JSI-0204-04	1/8	1/4	1/4	.1262	.1280	.2510	.2515	.1241	.1250
JSI-0204-06	1/8	1/4	3/8			.2510	.2515	.1241	.1250
JSI-0304-06	3/16	1/4	3/8	.1886	.1905	.2500	.2506	.1858	.1865
JSI-0304-08	3/16	1/4	1/2			.2500	.2506	.1858	.1865
JSI-0305-05	3/16	5/16	5/16	.1887	.1905	.3135	.3140	.1866	.1875
JSI-0305-06	3/16	5/16	3/8			.3135	.3140	.1866	.1875
JSI-0305-08	3/16	5/16	1/2			.3135	.3140	.1866	.1875
JSI-0405-04	1/4	5/16	1/4	.2516	.2539	.3135	.3140	.2491	.2500
JSI-0405-06	1/4	5/16	3/8			.3135	.3140	.2491	.2500
JSI-0405-08	1/4	5/16	1/2			.3135	.3140	.2491	.2500
JSI-0406-04	1/4	3/8	1/4	.2516	.2539	.3760	.3765	.2491	.2500
JSI-0406-08	1/4	3/8	1/2			.3760	.3765	.2491	.2500
JSI-0406-12	1/4	3/8	3/4			.3760	.3765	.2491	.2500
JSI-0406-16	1/4	3/8	1			.3760	.3765	.2491	.2500
JSI-0506-06	5/16	3/8	3/8	.3125	.3148	.3747	.3753	.3106	.3115
JSI-0506-08	5/16	3/8	1/2			.3747	.3753	.3106	.3115
JSI-0506-12	5/16	3/8	3/4			.3747	.3753	.3106	.3115
JSI-0506-16	5/16	3/8	1			.3747	.3753	.3106	.3115
JSI-0507-06	5/16	7/16	3/8	.3141	.3164	.4385	.4390	.3116	.3125
JSI-0507-07	5/16	7/16	7/16			.4385	.4390	.3116	.3125
JSI-0507-08	5/16	7/16	1/2			.4385	.4390	.3116	.3125
JSI-0507-10	5/16	7/16	5/8			.4385	.4390	.3116	.3125
JSI-0507-16	5/16	7/16	1			.4385	.4390	.3116	.3125
JSI-0607-06	3/8	15/32	3/8	.3750	.3773	.4684	.4691	.3731	.3740
JSI-0607-08	3/8	7/16	1/2	.3760	.3783	.4375	.4381	.3736	.3750
JSI-0608-03	3/8	1/2	3/16	.3764	.3787	.5000	.5006	.3736	.3750
JSI-0608-06	3/8	1/2	3/8			.5000	.5006	.3736	.3750
JSI-0608-08	3/8	1/2	1/2			.5000	.5006	.3736	.3750
JSI-0608-10	3/8	1/2	5/8			.5000	.5006	.3736	.3750
JSI-0708-08	7/16	17/32	1/2	.4379	.4406	.5309	.5316	.4366	.4375
JSI-0708-12	7/16	17/32	3/4			.5309	.5316	.4366	.4375
JSI-0709-06	7/16	9/16	3/8			.5625	.5632	.4366	.4375
JSI-0809-06	1/2	19/32	3/8	.5020	.5047	.5934	.5941	.4983	.5000
JSI-0809-08	1/2	19/32	1/2			.5934	.5941	.4983	.5000
JSI-0809-12	1/2	19/32	3/4			.5934	.5941	.4983	.5000
JSI-0809-16	1/2	19/32	1			.5934	.5941	.4983	.5000
JSI-0810-04	1/2	5/8	1/4			.6250	.6260	.4990	.5000

iglide®
J

iglide® J - Product range

Sleeve bearing - Inch


Order key

Type	Dimensions
J S I -01 03-02	
iglide® material	
Form S (sleeve)	
Inch	
Inner-Ø d1 (inch)	
Outer-Ø d2 (inch)	
Length b1 (inch)	

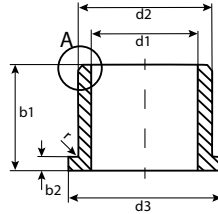
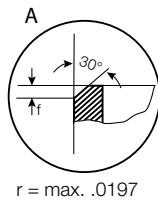
 For tolerance values
 please refer to page 119

*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
JSI-0810-08	1/2	5/8	1/2	.5020	.5047	.6250	.6260	.4990	.5000
JSI-0810-10	1/2	5/8	5/8			.6250	.6260	.4990	.5000
JSI-0810-12	1/2	5/8	3/4			.6250	.6260	.4990	.5000
JSI-0910-26	9/16	21/32	1 5/8	.5627	.5655	.6559	.6566	.5605	.5615
JSI-1011-08	5/8	23/32	1/2	.6253	.6280	.7184	.7192	.6230	.6240
JSI-1011-12	5/8	23/32	3/4			.7184	.7192	.6230	.6240
JSI-1011-14	5/8	23/32	7/8			.7184	.7192	.6230	.6240
JSI-1011-20	5/8	23/32	1 1/4			.7184	.7192	.6230	.6240
JSI-1012-04	5/8	3/4	1/4	.6270	.6297	.7500	.7510	.6240	.6250
JSI-1012-06	5/8	3/4	3/8			.7500	.7510	.6240	.6250
JSI-1012-08	5/8	3/4	1/2			.7500	.7510	.6240	.6250
JSI-1012-12	5/8	3/4	3/4			.7500	.7510	.6240	.6250
JSI-1012-16	5/8	3/4	1			.7500	.7510	.6240	.6250
JSI-1214-08	3/4	7/8	1/2			.7505	.7541	.8747	.8755
JSI-1214-12	3/4	7/8	3/4	.8747	.8755			.7479	.7491
JSI-1214-16	3/4	7/8	1	.8747	.8755			.7479	.7491
JSI-1216-12	3/4	1	3/4	.7525	.7559	1.000	1.0010	.7490	.7500
JSI-1216-16	3/4	1	1			1.000	1.0010	.7490	.7500
JSI-1315-15	13/16	15/16	15/16	.8141	.8174	.9375	.9383	.8105	.8125
JSI-1315-18	13/16	15/16	1 1/8			.9375	.9383	.8105	.8125
JSI-1416-12	7/8	1	3/4	.8757	.8791	.9997	1.0005	.8729	.8741
JSI-1418-12	7/8	1 1/8	3/4	.8775	.8809	1.1250	1.1258	.8740	.8750
JSI-1418-24	7/8	1 1/8	1 1/2			1.1250	1.1258	.8740	.8750
JSI-1618-16	1	1 1/8	1	1.0007	1.0041	1.1250	1.1255	.9979	.9991
JSI-1618-24	1	1 1/8	1 1/2			1.1250	1.1255	.9979	.9991
JSI-1620-12	1	1 1/4	3/4	1.0025	1.0059	1.2500	1.2510	.9990	1.0000
JSI-1620-16	1	1 1/4	1			1.2500	1.2510	.9990	1.0000
JSI-1620-24	1	1 1/4	1 1/2			1.2500	1.2510	.9990	1.0000
JSI-1822-16	1 1/8	1 3/8	1	1.1276	1.1327	1.3750	1.3760	1.1240	1.1250
JSI-1822-28	1 1/8	1 3/8	1 3/4			1.3750	1.3760	1.1240	1.1250
JSI-2022-14	1 1/4	1 13/32	7/8	1.2508	1.2548	1.4058	1.4068	1.2472	1.2488
JSI-2024-24	1 1/4	1 1/2	1 1/2	1.2532	1.2600	1.4995	1.5005	1.2490	1.2500
JSI-2426-32	1 1/2	1 5/8	2	1.5032	1.5100	1.6558	1.6568	1.4972	1.4988
JSI-2428-24	1 1/2	1 3/4	1 1/2	1.5032	1.5100	1.7495	1.7505	1.4990	1.5000
JSI-2832-20	1 3/4	2	1 1/4	1.7507	1.7547	2.0000	2.0010	1.7476	1.7500
JSI-2832-24	1 3/4	2	1 1/2			2.0000	2.0010	1.7476	1.7500
JSI-3236-32	2	2 1/4	2	2.0007	2.0047	2.2500	2.2510	1.9976	2.0000

iglide® J - Product range

Flange bearing - Inch

 iglide®
J

Order key

Type	Dimensions
J F I	-02 03-02
iglide® material	
Form F (flange)	
Inch	
Inner-Ø d1 (inch)	
Outer-Ø d2 (inch)	
Length b1 (inch)	

 For tolerance values
 please refer to page 119

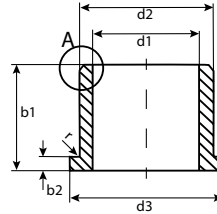
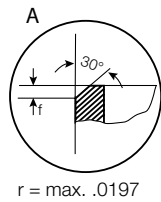
*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2 -.0055	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
JFI-0204-02	1/8	1/4	1/8	.360	.047	.1262	.1280	.2510	.2515	.1241	.1250
JFI-0204-06	1/8	1/4	3/8	.360	.047			.2510	.2515	.1241	.1250
JFI-0304-02	3/16	1/4	1/8	.375	.032	.1887	.1905	.2497	.2503	.1858	.1865
JFI-0304-04	3/16	1/4	1/4	.375	.032			.2497	.2503	.1858	.1865
JFI-0304-06	3/16	1/4	3/8	.375	.032	.1877	.1905	.2497	.2503	.1858	.1865
JFI-0304-08	3/16	1/4	1/2	.375	.032			.2497	.2503	.1858	.1865
JFI-0305-06	3/16	5/16	3/8	.370	.047	.1887	.1905	.3135	.3140	.1866	.1875
JFI-0305-08	3/16	5/16	1/2	.370	.047			.3135	.3140	.1866	.1875
JFI-0405-04	1/4	5/16	1/4	.430	.032	.2516	.2539	.3122	.3128	.2481	.2490
JFI-0405-06	1/4	5/16	3/8	.430	.032			.3122	.3128	.2481	.2490
JFI-0405-12	1/4	5/16	3/4	.430	.032	.2516	.2539	.3122	.3128	.2481	.2490
JFI-0406-03	1/4	3/8	3/16	.560	.047			.3760	.3765	.2491	.2500
JFI-0406-04	1/4	3/8	1/4	.560	.047	.2516	.2539	.3760	.3765	.2491	.2500
JFI-0406-08	1/4	3/8	1/2	.560	.047			.3760	.3765	.2491	.2500
JFI-0506-04	5/16	3/8	1/4	.500	.032	.3125	.3148	.3747	.3753	.3106	.3115
JFI-0506-06	5/16	3/8	3/8	.500	.032			.3747	.3753	.3106	.3115
JFI-0506-08	5/16	3/8	1/2	.500	.032	.3125	.3148	.3747	.3753	.3106	.3115
JFI-0507-08	5/16	7/16	1/2	.560	.062			.4385	.4390	.3116	.3125
JFI-0607-04	3/8	15/32	1/4	.687	.046	.3750	.3775	.4684	.4691	.3731	.3740
JFI-0607-06	3/8	15/32	3/8	.687	.046			.4684	.4691	.3731	.3740
JFI-0607-08	3/8	15/32	1/2	.687	.046	.3750	.3775	.4684	.4691	.3731	.3740
JFI-0608-03	3/8	1/2	3/16	.625	.062			.5010	.5015	.3741	.3750
JFI-0608-04	3/8	1/2	1/4	.625	.062	.3766	.3789	.5010	.5015	.3741	.3750
JFI-0608-06	3/8	1/2	3/8	.625	.062			.5010	.5015	.3741	.3750
JFI-0608-08	3/8	1/2	1/2	.625	.062	.3766	.3789	.5010	.5015	.3741	.3750
JFI-0708-12	7/16	17/32	3/4	.750	.046			.4379	.4406	.5309	.5316
JFI-0809-04	1/2	19/32	1/4	.875	.046	.5000	.5040	.5934	.5941	.4980	.4990
JFI-0809-06	1/2	19/32	3/8	.875	.046			.5934	.5941	.4980	.4990
JFI-0809-08	1/2	19/32	1/2	.875	.046	.5000	.5040	.5934	.5941	.4980	.4990
JFI-0810-04	1/2	5/8	1/4	.875	.062			.6250	.6260	.4990	.5000
JFI-0810-08	1/2	5/8	1/2	.875	.062	.5020	.5047	.6250	.6260	.4990	.5000
JFI-0810-10	1/2	5/8	5/8	.875	.062			.6250	.6260	.4990	.5000
JFI-0810-12	1/2	5/8	3/4	.875	.062	.5020	.5047	.6250	.6260	.4990	.5000
JFI-0810-16	1/2	5/8	1	.875	.062			.6250	.6260	.4990	.5000
JFI-1011-06	5/8	23/32	3/8	.937	.046	.6253	.6280	.7184	.7192	.6233	.6250
JFI-1011-08	5/8	23/32	1/2	.937	.046	.6253	.6280	.7184	.7192	.6233	.6250
JFI-1011-12	5/8	23/32	3/4	1.000	.046			.6268	.6295	.7184	.7192

iglide®
J

iglide® J - Product range

Flange bearing - Inch


 For tolerance values
please refer to page 119

Order key

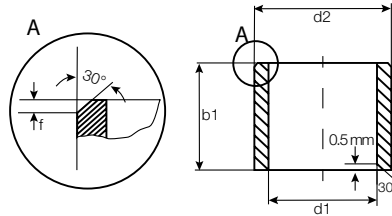
Type	Dimensions
J F I	-02 03-02
iglide® material	
Form F (flange)	
Inch	
Inner-Ø d1 (inch)	
Outer-Ø d2 (inch)	
Length b1 (inch)	

*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2 -.0055	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
JFI-1011-24	5/8	28/32	1 1/2	1.000	.046	.6268	.6295	.7184	.7192	.6233	.6250
JFI-1012-06	5/8	3/4	3/8	1.000	.062	.6270	.6297	.7500	.7510	.6240	.6250
JFI-1012-08	5/8	3/4	1/2	1.000	.062			.7500	.7510	.6240	.6250
JFI-1012-12	5/8	3/4	3/4	1.000	.062			.7500	.7510	.6240	.6250
JFI-1012-16	5/8	3/4	1	1.000	.062			.7500	.7510	.6240	.6250
JFI-1214-08	3/4	7/8	1/2	1.125	.062	.7505	.7541	.8747	.8755	.7479	.7491
JFI-1214-09	3/4	7/8	9/16	1.125	.062			.8747	.8755	.7479	.7491
JFI-1214-10	3/4	7/8	5/8	1.125	.062			.8747	.8755	.7479	.7491
JFI-1214-12	3/4	7/8	3/4	1.125	.062			.8747	.8755	.7479	.7491
JFI-1214-16	3/4	7/8	1	1.125	.062			.8747	.8755	.7479	.7491
JFI-1214-24	3/4	7/8	1 1/2	1.125	.062			.8747	.8755	.7479	.7491
JFI-1216-12	3/4	1	3/4	1.250	.156	.7525	.7559	1.0000	1.0010	.7490	.7500
JFI-1216-16	3/4	1	1	1.250	.156	.7525	.7559	1.0000	1.0010	.7490	.7500
JFI-1416-12	7/8	1	3/4	1.250	.062	.8757	.8791	.9997	1.0005	.8729	.8741
JFI-141618-11	7/8	1	11/16	1.125	.062	.8774	.8807	.9997	1.0005	.8740	.8750
JFI-1418-24	7/8	1 1/8	1 1/2	1.375	.156	.8775	.8809	1.1250	1.1260	.8740	.8750
JFI-1618-12	1	1 1/8	3/4	1.375	.062	1.0007	1.0041	1.1247	1.1255	.9979	.9991
JFI-1618-16	1	1 1/8	1	1.375	.062			1.1247	1.1255	.9979	.9991
JFI-1620-12	1	1 1/4	3/4	1.500	.188	1.0025	1.0059	1.2500	1.2510	.9990	1.0000
JFI-1620-16	1	1 1/4	1	1.500	.188			1.2500	1.2510	.9990	1.0000
JFI-1620-24	1	1 1/4	1 1/2	1.500	.188			1.2500	1.2510	.9990	1.0000
JFI-1820-08	1 1/8	1 1/2	1/2	1.562	.078	1.1254	1.1288	1.2808	1.2818	1.1226	1.1238
JFI-2024-16	1 1/4	1 1/2	1	1.750	.200	1.2531	1.2600	1.4995	1.5005	1.2490	1.2500
JFI-2024-24	1 1/4	1 1/2	1 1/2	1.750	.200			1.4995	1.5005	1.2490	1.2500
JFI-2428-16	1 1/2	1 3/4	1	2.000	.125	1.5032	1.5100	1.7495	1.7505	1.4990	1.5000
JFI-2428-24	1 1/2	1 3/4	1 1/2	2.000	.125			1.7495	1.7505	1.4990	1.5000
JFI-2630-16	1 5/8	1 7/8	1	2.125	.125	1.6282	1.6350	1.8745	1.8755	1.6240	1.6250
JFI-3236-16	2	2 1/4	1	2.500	.125	2.0032	2.0100	2.2495	2.2505	1.9990	2.0000

iglide® J - Product range

Sleeve bearing - Metric

 iglide®
J

Order key

Type	Dimensions
J S M -01 03-02	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
please refer to page 119

Dimensions according to ISO 3547-1 and special dimensions

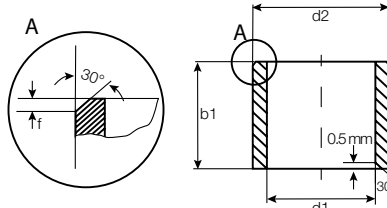
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
JSM-0104-02	1.5	4.0	2.0	1.514	1.554	4.000	4.012	1.475	1.500
JSM-0203-07	2.0	3.5	7.0	2.014	2.054	3.000	3.012	1.975	2.000
JSM-0205-02	2.0	5.0	2.5			5.000	5.012	1.975	2.000
JSM-0206-02	2.5	6.0	2.5	2.514	2.554	6.000	6.012	1.975	2.000
JSM-0206-03	2.5	6.0	3.5			6.000	6.012	1.975	2.000
JSM-0304-05	3.0	4.5	5.0	3.014	3.054	4.500	4.512	2.975	3.000
JSM-0304-09	3.0	4.5	9.0			4.500	4.512	2.975	3.000
JSM-0305-03	3.0	5.0	3.0	3.020	3.080	5.000	5.012	2.975	3.000
JSM-0305-04	3.0	5.0	4.0			5.000	5.012	2.975	3.000
JSM-0308-04	3.0	8.0	4.0	3.020	3.080	8.000	8.015	2.975	3.000
JSM-0308-05	3.0	8.0	5.0			8.000	8.015	2.975	3.000
JSM-0405-04	4.0	5.5	4.0	4.020	4.068	5.500	5.512	3.970	4.000
JSM-0405-06	4.0	5.5	6.0			5.500	5.512	3.970	4.000
JSM-0405-08	4.0	5.5	8.0			5.500	5.512	3.970	4.000
JSM-0507-046	5.0	7.0	4.6	5.020	5.068	7.000	7.015	4.970	5.000
JSM-0507-05	5.0	7.0	5.0			7.000	7.015	4.970	5.000
JSM-0507-10	5.0	7.0	10.0			7.000	7.015	4.970	5.000
JSM-0507-15	5.0	7.0	15.0			7.000	7.015	4.970	5.000
JSM-0508-05	5.0	7.0	15.0	5.030	5.105	7.000	7.01	4.970	5.000
JSM-0607-08	6.0	7.0	8.0	6.020	6.068	7.000	7.015	5.970	6.000
JSM-0607-12.5	6.0	7.0	12.5			7.000	7.015	5.970	6.000
JSM-0607-14	6.0	7.0	14.0			7.000	7.015	5.970	6.000
JSM-0608-043	6.0	8.0	4.3	6.020	6.058	8.000	8.015	5.970	6.000
JSM-0608-06	6.0	8.0	6.0	6.020	6.068	8.000	8.015	5.970	6.000
JSM-0608-08	6.0	8.0	8.0			8.000	8.015	5.970	6.000
JSM-0608-10	6.0	8.0	10.0			8.000	8.015	5.970	6.000
JSM-0609-06	6.0	9.0	6.0	6.020	6.068	9.000	9.015	5.970	6.000
JSM-0610-10	6.0	10.0	10.0	6.020	6.068	10.000	10.015	5.970	6.000
JSM-0709-09	7.0	9.0	9.0	7.025	7.083	9.000	9.015	6.964	7.000
JSM-0810-04	8.0	10.0	4.0	8.025	8.083	10.000	10.015	7.964	8.000
JSM-0810-06	8.0	10.0	6.0			10.000	10.015	7.964	8.000
JSM-0810-08	8.0	10.0	8.0			10.000	10.015	7.964	8.000
JSM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
JSM-0810-12	8.0	10.0	12.0			10.000	10.015	7.964	8.000
JSM-0810-16	8.0	10.0	16.0			10.000	10.015	7.964	8.000
JSM-0812-10	8.0	12.0	10.0	8.040	8.130	12.000	12.018	7.964	8.000
JSM-0812-12	8.0	12.0	12.0			12.000	12.018	7.964	8.000

iglide®
J

iglide® J - Product range

Sleeve bearing - Metric


Order key

Type	Dimensions
J S M -01 03-02	

iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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 For tolerance values
please refer to page 119

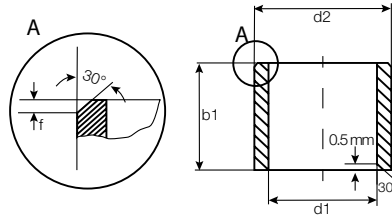
Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
JSM-0911-06	9.0	11.0	10.0	9.025	9.083	11.000	11.018	8.964	9.000
JSM-1012-05	10.0	12.0	5.0	10.025	10.083	12.000	12.018	9.964	10.000
JSM-1012-06	10.0	12.0	6.0			12.000	12.018	9.964	10.000
JSM-1012-08	10.0	12.0	8.0			12.000	12.018	9.964	10.000
JSM-1012-10	10.0	12.0	10.0			12.000	12.018	9.964	10.000
JSM-1012-11	10.0	12.0	11.0			12.000	12.018	9.964	10.000
JSM-1012-12	10.0	12.0	12.0			12.000	12.018	9.964	10.000
JSM-1012-15	10.0	12.0	15.0			12.000	12.018	9.964	10.000
JSM-1012-20	10.0	12.0	20.0			12.000	12.018	9.964	10.000
JSM-1014-10	10.0	14.0	10.0	10.040	10.130	14.000	14.018	9.964	10.000
JSM-1014-16	10.0	14.0	16.0			14.000	14.018	9.964	10.000
JSM-1214-06	12.0	14.0	6.0	12.032	12.102	14.000	14.018	11.957	12.000
JSM-1214-08	12.0	14.0	8.0			14.000	14.018	11.957	12.000
JSM-1214-09	12.0	14.0	9.0			14.000	14.018	11.957	12.000
JSM-1214-10	12.0	14.0	10.0			14.000	14.018	11.957	12.000
JSM-1214-12	12.0	14.0	12.0			14.000	14.018	11.957	12.000
JSM-1214-15	12.0	14.0	15.0			14.000	14.018	11.957	12.000
JSM-1214-20	12.0	14.0	20.0			14.000	14.018	11.957	12.000
JSM-1216-12	12.0	16.0	12.0			12.050	12.160	16.000	16.018
JSM-1216-17	12.0	16.0	17.0			16.000	16.018	11.957	12.000
JSM-1315-10	13.0	15.0	10.0	13.032	13.102	15.000	15.018	12.957	13.000
JSM-1315-20	13.0	15.0	20.0			15.000	15.018	12.957	13.000
JSM-1416-05	14.0	16.0	5.0	14.032	14.102	16.000	16.018	13.957	14.000
JSM-1416-08	14.0	16.0	8.0			16.000	16.018	13.957	14.000
JSM-1416-10	14.0	16.0	10.0			16.000	16.018	13.957	14.000
JSM-1416-15	14.0	16.0	15.0			16.000	16.018	13.957	14.000
JSM-1416-20	14.0	16.0	20.0			16.000	16.018	13.957	14.000
JSM-1416-25	14.0	16.0	25.0			16.000	16.018	13.957	14.000
JSM-1416-33	14.0	16.0	33.0			16.000	16.018	13.957	14.000
JSM-1418-18	14.0	18.0	18.0			14.032	14.102	18.000	18.018
JSM-1420-20	14.0	20.0	20.0			20.000	20.018	13.957	14.000
JSM-1517-12	15.0	17.0	12.0	15.032	15.102	17.000	17.018	14.957	15.000
JSM-1517-15	15.0	17.0	15.0			17.000	17.018	14.957	15.000
JSM-1517-20	15.0	17.0	20.0			17.000	17.018	14.957	15.000
JSM-1517-25	15.0	17.0	25.0			17.000	17.018	14.957	15.000
JSM-1618-10	16.0	18.0	10.0			16.032	16.102	18.000	18.018
JSM-1618-12	16.0	18.0	12.0			18.000	18.018	15.957	16.000

iglide® J - Product range

Sleeve bearing - Metric

 iglide®
J

Order key

Type	Dimensions
J S M -01 03-02	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
 please refer to page 119

Dimensions according to ISO 3547-1 and special dimensions

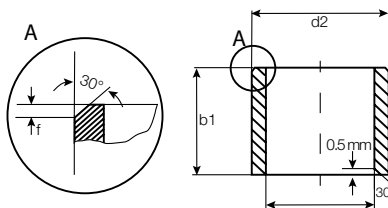
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				h13	Min.	Max.	Min.	Max.	Min.
JSM-1618-15	16.0	18.0	15.0	16.032	16.102	18.000	18.018	15.957	16.000
JSM-1618-20	16.0	18.0	20.0			18.000	18.018	15.957	16.000
JSM-1618-25	16.0	18.0	25.0			18.000	18.018	15.957	16.000
JSM-1620-16	16.0	20.0	16.0	16.050	16.160	20.000	20.021	15.957	16.000
JSM-1622-16	16.0	22.0	16.0	16.050	16.160	22.000	22.021	15.957	16.000
JSM-1622-20	16.0	22.0	20.0			22.000	22.021	15.957	16.000
JSM-1719-06	17.0	19.0	6.0	19.032	19.102	19.000	19.021	16.957	17.000
JSM-1820-15	18.0	20.0	15.0	18.032	18.102	20.000	20.021	17.957	18.000
JSM-1820-20	18.0	20.0	20.0			20.000	20.021	17.957	18.000
JSM-1820-25	18.0	20.0	25.0			20.000	20.021	17.957	18.000
JSM-2022-20	20.0	22.0	20.0	20.040	20.124	22.000	22.021	19.948	20.000
JSM-2022-30	20.0	22.0	30.0			22.000	22.021	19.948	20.000
JSM-2023-10	20.0	23.0	10.0	20.040	20.124	23.000	23.021	19.948	20.000
JSM-2023-15	20.0	23.0	15.0			23.000	23.021	19.948	20.000
JSM-2023-20	20.0	23.0	20.0			23.000	23.021	19.948	20.000
JSM-2023-25	20.0	23.0	25.0			23.000	23.021	19.948	20.000
JSM-2023-30	20.0	23.0	30.0			23.000	23.021	19.948	20.000
JSM-2026-06	20.0	26.0	6.0	20.065	20.195	26.000	26.021	19.948	20.000
JSM-2026-20	20.0	26.0	20.0			26.000	26.021	19.948	20.000
JSM-2026-25	20.0	26.0	25.0			26.000	26.021	19.948	20.000
JSM-2026-30	20.0	26.0	30.0			26.000	26.021	19.948	20.000
JSM-2124-12	21.0	24.0	12.0	21.040	21.124	24.000	24.021	20.948	21.000
JSM-2225-15	22.0	25.0	15.0	22.040	22.124	25.000	25.021	21.948	22.000
JSM-2225-20	22.0	25.0	20.0			25.000	25.021	21.948	22.000
JSM-2225-25	22.0	25.0	25.0			25.000	25.021	21.948	22.000
JSM-2225-30	22.0	25.0	30.0			25.000	25.021	21.948	22.000
JSM-2228-20	22.0	28.0	20.0	22.065	22.195	28.000	28.021	21.948	22.000
JSM-2326-12	23.0	27.0	25.0	24.040	24.124	27.000	27.021	23.948	24.000
JSM-2427-15	24.0	27.0	15.0	24.040	24.124	27.000	27.021	23.948	24.000
JSM-2427-20	24.0	27.0	20.0			27.000	27.021	23.948	24.000
JSM-2427-25	24.0	27.0	25.0			27.000	27.021	23.948	24.000
JSM-2427-30	24.0	27.0	30.0			27.000	27.021	23.948	24.000
JSM-2427-46	24.0	27.0	46.0			27.000	27.021	23.948	24.000
JSM-2528-12	25.0	28.0	12.0	25.040	25.124	28.000	28.021	24.948	25.000
JSM-2528-15	25.0	28.0	15.0			28.000	28.021	24.948	25.000
JSM-2528-20	25.0	28.0	20.0			28.000	28.021	24.948	25.000
JSM-2528-25	25.0	28.0	25.0			28.000	28.021	24.948	25.000

iglide®
J

iglide® J - Product range

Sleeve bearing - Metric


Order key

Type	Dimensions
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J S M -01 03-02

iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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 For tolerance values
please refer to page 119

Dimensions according to ISO 3547-1 and special dimensions

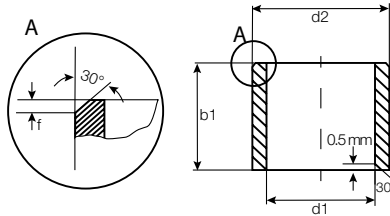
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
JSM-2528-30	25.0	28.0	30.0	25.040	25.124	28.000	28.021	24.948	25.000
JSM-2528-60	25.0	28.0	60.0			28.000	28.021	24.948	25.000
JSM-2532-25	25.0	32.0	25.0	25.065	25.195	32.000	32.025	24.948	25.000
JSM-2532-35	25.0	32.0	35.0			32.000	32.025	24.948	25.000
JSM-2630-20	26.0	30.0	20.0	26.065	26.195	30.000	30.025	25.948	26.000
JSM-2832-20	28.0	32.0	20.0	28.065	28.195	32.000	32.025	27.948	28.000
JSM-2832-25	28.0	32.0	25.0			32.000	32.025	27.948	28.000
JSM-2832-30	28.0	32.0	30.0			32.000	32.025	27.948	28.000
JSM-2836-29	28.0	36.0	29.0	28.065	28.195	36.000	36.025	27.948	28.000
JSM-3034-20	30.0	34.0	20.0	30.040	30.124	34.000	34.025	29.948	30.000
JSM-3034-25	30.0	34.0	25.0			34.000	34.025	29.948	30.000
JSM-3034-30	30.0	34.0	30.0			34.000	34.025	29.948	30.000
JSM-3034-40	30.0	34.0	40.0			34.000	34.025	29.948	30.000
JSM-3038-40	30.0	38.0	40.0	30.065	30.195	38.000	38.025	29.948	30.000
JSM-3236-20	32.0	36.0	20.0	32.050	32.150	36.000	36.025	31.938	32.000
JSM-3236-30	32.0	36.0	30.0			36.000	36.025	31.938	32.000
JSM-3236-40	32.0	36.0	40.0			36.000	36.025	31.938	32.000
JSM-3539-20	35.0	39.0	20.0	35.050	35.150	39.000	39.025	34.938	35.000
JSM-3539-30	35.0	39.0	30.0			39.000	39.025	34.938	35.000
JSM-3539-40	35.0	39.0	40.0			39.000	39.025	34.938	35.000
JSM-3539-50	35.0	39.0	50.0			39.000	39.025	34.938	35.000
JSM-3640-45	36.0	40.0	45.0	36.050	36.150	40.000	40.025	35.938	36.000
JSM-4044-20	40.0	44.0	20.0	40.050	40.150	44.000	44.025	39.938	40.000
JSM-4044-30	40.0	44.0	30.0			44.000	44.025	39.938	40.000
JSM-4044-35	40.0	44.0	35.0			44.000	44.025	39.938	40.000
JSM-4044-40	40.0	44.0	40.0			44.000	44.025	39.938	40.000
JSM-4044-50	40.0	44.0	50.0			44.000	44.025	39.938	40.000
JSM-4550-20	45.0	45.0	20.0	45.050	45.150	50.000	50.025	44.938	45.000
JSM-4550-30	45.0	45.0	30.0			50.000	50.025	44.938	45.000
JSM-4550-40	45.0	45.0	40.0			50.000	50.025	44.938	45.000
JSM-4550-50	45.0	45.0	50.0			50.000	50.025	44.938	45.000
JSM-5055-20	50.0	55.0	20.0	50.050	50.150	55.000	55.030	49.938	50.000
JSM-5055-30	50.0	55.0	30.0			55.000	55.030	49.938	50.000
JSM-5055-40	50.0	55.0	40.0			55.000	55.030	49.938	50.000
JSM-5055-50	50.0	55.0	50.0			55.000	55.030	49.938	50.000
JSM-5055-60	50.0	55.0	60.0			55.000	55.030	49.938	50.000
JSM-5560-60	55.0	60.0	60.0			55.060	55.180	60.000	60.030

iglide® J - Product range

Sleeve bearing - Metric

iglide®
J



Order key

Type		Dimensions		
J	S	M	-01	03-02
iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)
				Length b1 (mm)

For tolerance values
please refer to page 119

Dimensions according to ISO 3547-1 and special dimensions

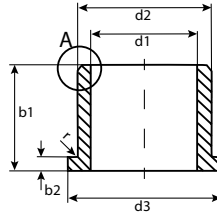
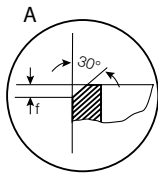
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				h13	Min.	Max.	Min.	Max.	Min.
JSM-6065-60	60.0	65.0	60.0	60.060	60.180	65.000	65.030	59.926	60.000
JSM-6570-50	65.0	70.0	50.0	65.060	65.180	70.000	70.030	64.926	65.000
JSM-7075-60	70.0	75.0	60.0	70.060	70.180	75.000	75.030	69.926	70.000
JSM-7580-60	75.0	80.0	60.0	75.060	75.180	80.000	80.030	74.926	75.000
JSM-8085-100	80.0	85.0	100.0	80.060	80.180	85.000	85.035	79.926	80.000
JSM-8086-60	80.0	86.0	60.0	80.060	80.180	86.000	85.035	79.926	80.000
JSM-8590-100	85.0	90.0	100.0	85.072	85.212	90.000	90.035	84.913	85.000
JSM-100105-100	110.0	105.0	100.0	100.072	100.212	105.000	105.035	99.913	100.000
JSM-110115-60	110.0	115.0	60.0	110.072	110.212	110.000	110.035	109.913	100.000

iglide®
J

iglide® J - Product range

Flange bearing - Metric


Order key

Type	Dimensions
J F M	-01 03-02

 $r = \max. 0.5$

 For tolerance values
 please refer to page 119

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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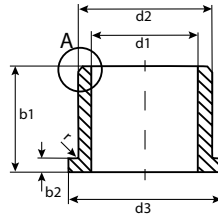
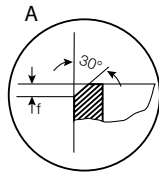
Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
JFM-0304-03	3.0	4.5	7.5	3.0	0.75	3.014	3.054	4.500	4.512	2.975	3.000
JFM-0304-045	3.0	4.5	7.5	4.5	0.75			4.500	4.512	2.975	3.000
JFM-0304-05	3.0	4.5	7.5	5.0	0.75			4.500	4.512	2.975	3.000
JFM-0306-10	3.0	6.0	9.0	10.0	1.5	3.020	3.068	4.500	4.512	2.975	3.000
JFM-0405-03	4.0	5.5	9.5	3.0	0.75	4.020	4.068	5.500	5.512	3.970	4.000
JFM-0405-06	4.0	5.5	9.5	6.0	0.75			5.500	5.512	3.970	4.000
JFM-0408-04	4.0	8.0	12.0	4.0	2.0	4.030	4.105	8.000	8.015	3.970	4.000
JFM-0506-05	5.0	6.0	10.0	5.0	0.5	5.020	5.068	6.000	6.015	4.970	5.000
JFM-0507-03	5.0	7.0	11.0	3.0	1.0	5.020	5.068	7.000	7.015	4.970	5.000
JFM-0507-05	5.0	7.0	11.0	5.0	1.0			7.000	7.015	4.970	5.000
JFM-0608-04	6.0	8.0	12.0	4.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
JFM-0608-06	6.0	8.0	12.0	6.0	1.0			8.000	8.015	5.970	6.000
JFM-0608-08	6.0	8.0	12.0	8.0	1.0			8.000	8.015	5.970	6.000
JFM-0608-10	6.0	8.0	12.0	10.0	1.0			8.000	8.015	5.970	6.000
JFM-0610-10	6.0	10.0	14.0	10.0	2.0	6.030	6.105	10.000	10.015	5.970	6.000
JFM-0810-038	8.0	10.0	15.0	3.8	1.0	8.025	8.083	10.000	10.015	7.964	8.000
JFM-0810-05	8.0	10.0	15.0	5.5	1.0			10.000	10.015	7.964	8.000
JFM-0810-06	8.0	10.0	15.0	6.0	1.0			10.000	10.015	7.964	8.000
JFM-0810-07	8.0	10.0	15.0	7.5	1.0			10.000	10.015	7.964	8.000
JFM-0810-08	8.0	10.0	15.0	8.0	1.0			10.000	10.015	7.964	8.000
JFM-0810-09	8.0	10.0	15.0	9.5	1.0			10.000	10.015	7.964	8.000
JFM-0810-10	8.0	10.0	15.0	10.0	1.0			10.000	10.015	7.964	8.000
JFM-0810125-10	8.0	10.0	12.5	10.0	1.0			10.000	10.015	7.964	8.000
JFM-081014-10	8.0	10.0	14.0	10.0	1.0			10.000	10.015	7.964	8.000
JFM-081016-11	8.0	10.0	16.0	11.0	1.0			10.000	10.015	7.964	8.000
JFM-0812-05	8.0	12.0	16.0	5.0	2.0	8.040	8.130	12.000	12.018	7.964	8.000
JFM-0812-06	8.0	12.0	16.0	6.0	2.0			12.000	12.018	7.964	8.000
JFM-0812-12	8.0	12.0	16.0	12.0	2.0			12.000	12.018	7.964	8.000
JFM-0812-30	8.0	12.0	16.0	30.0	2.0			12.000	12.018	7.964	8.000
JFM-101215-035	10.0	12.0	15.0	3.5	1.0	10.025	10.083	12.000	12.018	9.964	10.000
JFM-1012-05	10.0	12.0	18.0	5.0	1.0			12.000	12.018	9.964	10.000
JFM-1012-07	10.0	12.0	18.0	7.0	1.0			12.000	12.018	9.964	10.000
JFM-1012-09	10.0	12.0	18.0	9.0	1.0			12.000	12.018	9.964	10.000
JFM-1012-10	10.0	12.0	18.0	10.0	1.0			12.000	12.018	9.964	10.000
JFM-1012-12	10.0	12.0	18.0	12.0	1.0			12.000	12.018	9.964	10.000
JFM-1012-15	10.0	12.0	18.0	15.0	1.0			12.000	12.018	9.964	10.000
JFM-1012-17	10.0	12.0	18.0	17.0	1.0			12.000	12.018	9.964	10.000

iglide® J - Product range

Flange bearing - Metric

 iglide®
J

Order key

Type	Dimensions
J F M	-01 03-02

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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 $r = \max. 0.5$

 For tolerance values
 please refer to page 119

Dimensions according to ISO 3547-1 and special dimensions

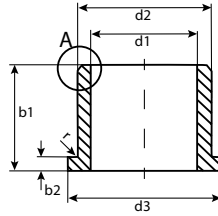
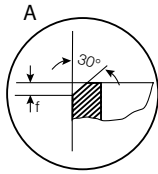
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size			
						Min.	Max.	Min.	Max.	Min.	Max.		
JFM-1012-18	10.0	12.0	18.0	18.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000		
JFM-1014-14	10.0	14.0	17.5	14.0	1.0	10.025	10.083	14.000	14.018	9.964	10.000		
JFM-101420-12	10.0	14.0	20.0	12.0	2.0			14.000	14.018	9.964	10.000		
JFM-1016-10	10.0	16.0	22.0	10.0	3.0	10.040	10.130	16.000	16.018	9.964	10.000		
JFM-1016-16	10.0	16.0	22.0	16.0	3.0			16.000	16.018	9.964	10.000		
JFM-1113-05	11.0	13.0	18.0	5.0	1.0	11.032	11.102	13.000	13.018	10.964	11.000		
JFM-1214-05	12.0	14.0	20.0	5.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000		
JFM-1214-07	12.0	14.0	20.0	7.0	1.0			14.000	14.018	11.957	12.000		
JFM-1214-09	12.0	14.0	20.0	9.0	1.0			14.000	14.018	11.957	12.000		
JFM-121418-10	12.0	14.0	18.0	10.0	1.0			14.000	14.018	11.957	12.000		
JFM-1214-12	12.0	14.0	20.0	12.0	1.0			14.000	14.018	11.957	12.000		
JFM-1214-15	12.0	14.0	20.0	15.0	1.0			14.000	14.018	11.957	12.000		
JFM-1214-17	12.0	14.0	20.0	17.0	1.0			14.000	14.018	11.957	12.000		
JFM-1214-20	12.0	14.0	20.0	20.0	1.0			14.000	14.018	11.957	12.000		
JFM-1218-08	12.0	18.0	24.0	8.0	3.0			12.050	12.160	18.000	18.018	11.957	12.000
JFM-1218-12	12.0	18.0	24.0	12.0	3.0					18.000	18.018	11.957	12.000
JFM-1218-20	12.0	18.0	22.0	20.0	3.0	18.000	18.018			11.957	12.000		
JFM-1416-03	14.0	16.0	22.0	3.0	1.0	14.032	14.102	16.000	16.018	13.957	14.000		
JFM-1416-10	14.0	16.0	22.0	10.0	1.0			16.000	16.018	13.957	14.000		
JFM-1416-12	14.0	16.0	22.0	12.0	1.0			16.000	16.018	13.957	14.000		
JFM-1416-17	14.0	16.0	22.0	17.0	1.0			16.000	16.018	13.957	14.000		
JFM-141822-20	14.0	18.0	22.0	20.0	2.0			18.000	18.018	13.957	14.000		
JFM-1420-20	14.0	20.0	25.0	20.0	3.0	14.050	14.160	20.000	20.021	13.957	14.000		
JFM-1517-04	15.0	17.0	23.0	4.0	1.0	15.032	15.102	17.000	17.018	14.957	15.000		
JFM-1517-09	15.0	17.0	23.0	9.0	1.0			17.000	17.018	14.957	15.000		
JFM-1517-12	15.0	17.0	23.0	12.0	1.0			17.000	17.018	14.957	15.000		
JFM-1517-17	15.0	17.0	23.0	17.0	1.0			17.000	17.018	14.957	15.000		
JFM-1521-20	15.0	21.0	27.0	20.0	3.0	15.050	15.160	21.000	21.021	14.957	15.000		
JFM-1618-12	16.0	18.0	24.0	12.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000		
JFM-1618-17	16.0	18.0	24.0	17.0	1.0			18.000	18.018	15.957	16.000		
JFM-1622-12	16.0	22.0	28.0	12.0	3.0	16.050	16.160	22.000	22.021	15.957	16.000		
JFM-1622-15	16.0	22.0	28.0	15.0	3.0			22.000	22.021	15.957	16.000		
JFM-1622-20	16.0	22.0	28.0	20.0	3.0			22.000	22.021	15.957	16.000		
JFM-1622-25	16.0	22.0	28.0	25.0	3.0			22.000	22.021	15.957	16.000		
JFM-1719-09	17.0	19.0	25.0	9.0	1.0	17.032	17.102	19.000	19.018	16.957	17.000		
JFM-1719-21	17.0	19.0	25.0	21.0	1.0			19.000	19.018	16.957	17.000		
JFM-1820-04	18.0	20.0	26.0	4.0	1.0	18.032	18.102	20.000	20.021	17.957	18.000		

iglide®
J

iglide® J - Product range

Flange bearing - Metric


Order key

Type	Dimensions
J F M -01 03-02	
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 $r = \max. 0.5$

 For tolerance values
please refer to page 119

Dimensions according to ISO 3547-1 and special dimensions

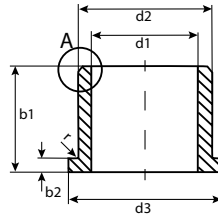
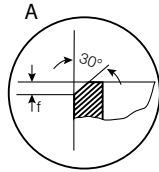
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
JFM-1820-12	18.0	20.0	26.0	12.0	1.0	18.032	18.102	20.000	20.021	17.957	18.000
JFM-1820-17	18.0	20.0	26.0	17.0	1.0			20.000	20.021	17.957	18.000
JFM-1820-22	18.0	20.0	26.0	22.0	1.0			20.000	20.021	17.957	18.000
JFM-1821-12	18.0	21.0	25.0	12.0	1.0	18.032	18.102	21.000	21.021	17.957	18.000
JFM-1922-36	19.0	22.0	26.0	36.0	1.0	19.040	19.124	22.000	22.021	18.957	19.000
JFM-2023-11	20.0	23.0	30.0	11.5	1.5	20.040	20.124	23.000	23.021	19.948	20.000
JFM-2023-15.5	20.0	23.0	30.0	15.5	1.5			23.000	23.021	19.948	20.000
JFM-2023-16	20.0	23.0	30.0	16.5	1.5			23.000	23.021	19.948	20.000
JFM-2023-21	20.0	23.0	30.0	21.5	1.5			23.000	23.021	19.948	20.000
JFM-202530-15	20.0	25.0	30.0	15.0	2.5	20.065	20.195	25.000	25.021	19.948	20.000
JFM-2026-15	20.0	26.0	32.0	15.0	3.0	20.065	20.195	26.000	26.021	19.948	20.000
JFM-2026-20	20.0	26.0	32.0	20.0	3.0			26.000	26.021	19.948	20.000
JFM-2026-25	20.0	26.0	32.0	25.0	3.0			26.000	26.021	19.948	20.000
JFM-2026-30	20.0	26.0	32.0	30.0	3.0			26.000	26.021	19.948	20.000
JFM-222532-08	22.0	25.0	32.0	8.0	1.5	22.040	22.124	25.000	25.021	21.948	22.000
JFM-2430-30	24.0	30.0	36.0	30.0	3.0	24.040	24.124	30.000	30.021	23.948	24.000
JFM-2528-06	25.0	28.0	35.0	6.0	1.5	25.040	25.124	28.000	28.021	24.948	25.000
JFM-2528-11	25.0	28.0	35.0	11.5	1.5			28.000	28.021	24.948	25.000
JFM-2528-14.5	25.0	28.0	35.0	14.5	1.5			28.000	28.021	24.948	25.000
JFM-2528-16	25.0	28.0	35.0	16.5	1.5			28.000	28.021	24.948	25.000
JFM-2528-21	25.0	28.0	35.0	21.5	1.5			28.000	28.021	24.948	25.000
JFM-252839-075	25.0	28.0	39.0	7.5	1.5	25.065	25.195	28.000	28.021	24.948	25.000
JFM-2532-20	25.0	32.0	38.0	20.0	4.0	25.065	25.195	32.000	32.021	24.948	25.000
JFM-2532-25	25.0	32.0	38.0	25.0	4.0			32.000	32.021	24.948	25.000
JFM-2532-40	25.0	32.0	38.0	40.0	2.0			32.000	32.021	24.948	25.000
JFM-3034-16	30.0	34.0	42.0	16.0	2.0	30.040	30.124	34.000	34.025	29.948	30.000
JFM-3034-20	30.0	34.0	42.0	20.0	2.0			34.000	34.025	29.948	30.000
JFM-3034-26	30.0	34.0	42.0	26.0	2.0			34.000	34.025	29.948	30.000
JFM-3038-20	30.0	38.0	44.0	20.0	4.0	30.065	30.195	38.000	38.025	29.948	30.000
JFM-3038-30	30.0	38.0	44.0	30.0	4.0			38.000	38.025	29.948	30.000
JFM-3038-36	30.0	38.0	44.0	36.0	4.0			38.000	38.025	29.948	30.000
JFM-3539-12	35.0	39.0	47.0	12.0	2.0	35.050	35.150	39.000	39.025	34.938	35.000
JFM-3539-16	35.0	39.0	47.0	16.0	2.0			39.000	39.025	34.938	35.000
JFM-3539-26	35.0	39.0	47.0	26.0	2.0			39.000	39.025	34.938	35.000
JFM-4044-20	40.0	44.0	52.0	20.0	2.0	40.050	40.150	44.000	44.025	39.938	40.000
JFM-4044-30	40.0	44.0	52.0	30.0	2.0			44.000	44.025	39.938	40.000
JFM-4044-40	40.0	44.0	52.0	40.0	2.0			44.000	44.025	39.938	40.000

iglide® J - Product range

Flange bearing - Metric

iglide®
J



Order key

Type	Dimensions
J F M	-01 03-02

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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$r = \max. 0.5$

For tolerance values
please refer to page 119

Dimensions according to ISO 3547-1 and special dimensions

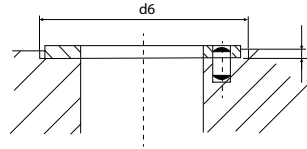
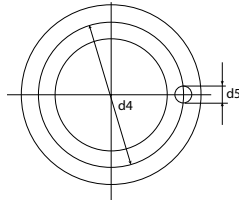
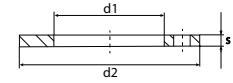
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
JFM-4550-20	45.0	50.0	58.0	20.0	2.0	45.050	45.150	50.000	50.025	44.938	45.000
JFM-4550-50	45.0	50.0	58.0	50.0	2.0			50.000	50.025	44.938	45.000
JFM-5055-50	50.0	55.0	63.0	50.0	2.0	50.050	50.150	55.000	55.030	49.938	50.000
JFM-556082-30	55.0	60.0	82.0	30.0	2.0	55.060	55.180	60.000	60.030	54.926	55.000
JFM-5560-50	55.0	60.0	68.0	50.0	2.0			60.000	60.030	54.926	55.000
JFM-6065-50	60.0	65.0	73.0	50.0	2.0	60.060	60.180	65.000	65.030	59.926	60.000
JFM-7075-50	70.0	75.0	83.0	50.0	2.0	70.060	70.180	75.000	75.030	69.926	70.000
JFM-9095-100	90.0	95.0	108.0	100.0	2.5	90.072	90.212	95.000	95.035	89.900	90.000
JFM-100105-100	100.0	115.0	123.0	100.0	2.5	110.072	110.212	115.000	115.035	109.900	110.000

iglide®
J

iglide® J - Product range

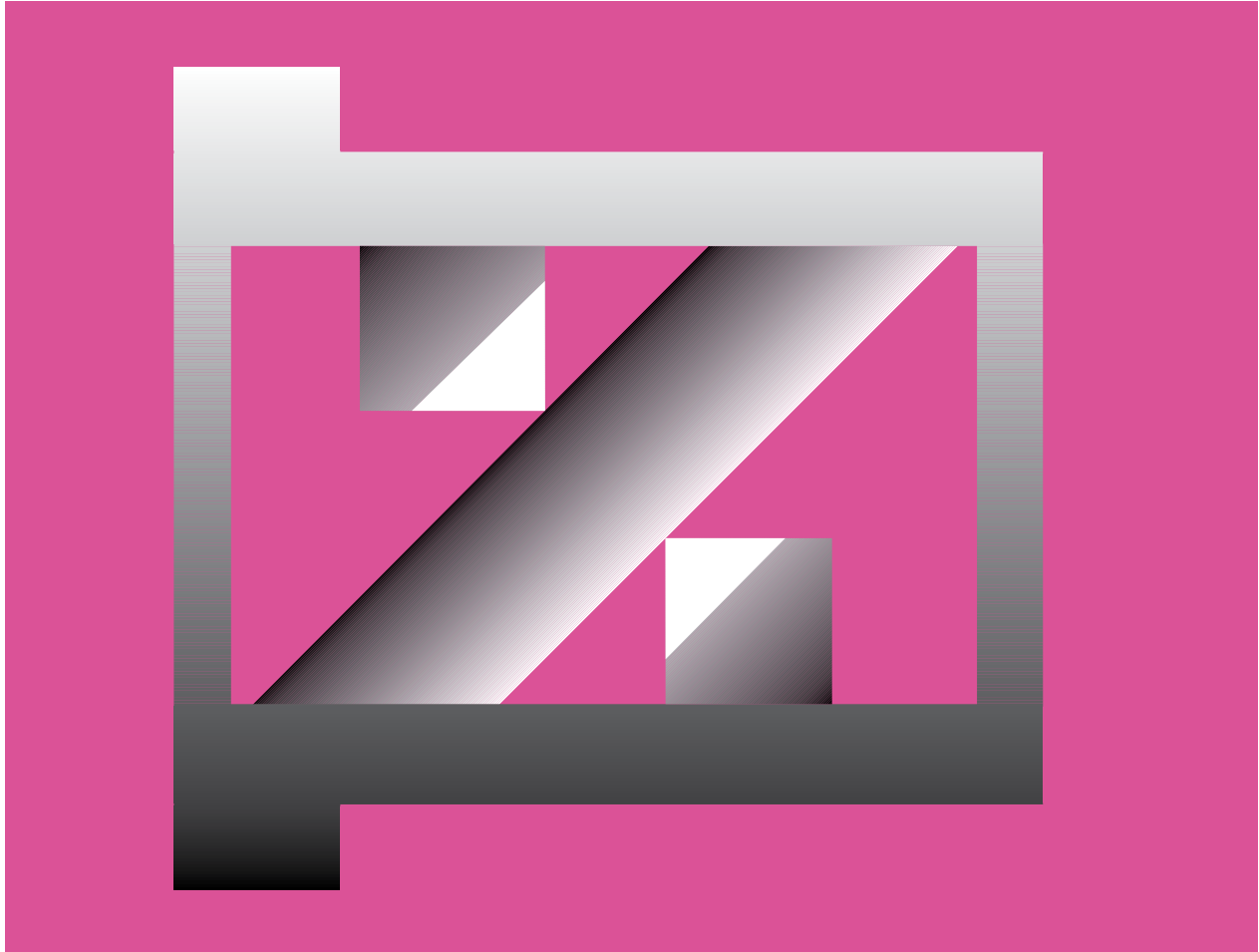
Thrust washer - Metric



Order key

Type	Dimensions
J T M	-04 08-005
iglide® material	Form T (washer)
	Metric
	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Thickness s (mm)

Part Number	d1	d2	s	d4	d5	h	d6
	0.3	-0.3	-0.05	-0.12 +0.12	+0.375 +0.125	+0.2 0.2	+0.12
JTM-0512-010	5.3	12.0	1.0	—	—	0.7	12.0
JTM-1224-015	12.0	24.0	1.5	18.0	1.5	1.0	24.0
JTM-1234-015	12.0	34.0	1.5	—	—	1.0	34.0
JTM-1420-015	14.0	20.0	1.5	—	—	1.0	20.0
JTM-2036-015	20.0	36.0	1.5	28.0	3.0	1.0	36.0
JTM-2842-020	28.0	42.0	2.0	38.0	4.0	1.0	48.0
JTM-3039-015	30.0	39.0	1.5	—	—	1.0	39.0
JTM-5670-010	56.0	70.0	1.0	—	—	0.7	70.0
JTM-139188-020	139.0	188.0	2.0	—	—	1.5	188.0



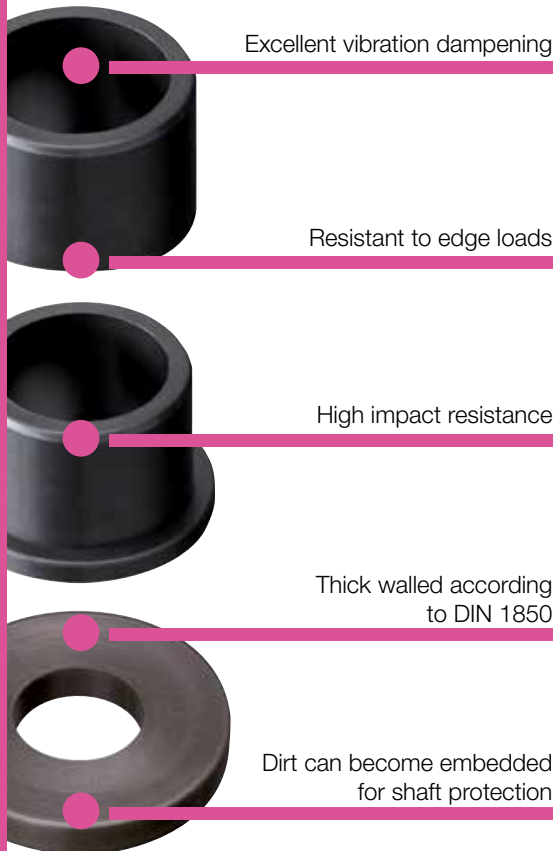
iglide® M250

- Excellent vibration dampening
- Resistant to edge loads
- High impact resistance
- Thick-walled according to DIN 1850
- For shaft protection, dirt can become embedded

iglide®
M250

iglide® M250 - Thick and Tough

Excellent vibration dampening



The self-lubricating plain bearings made of iglide® M250 are defined by their impact strength, vibration dampening, and wear resistant properties. They excel in applications in which vibration dampening is necessary, for example, in fitness and packaging machines. Since they are additionally able to absorb dirt, they are also suited for agricultural machines and garden appliances.



- When the bearings are exposed to high amounts of dirt
- When high vibration dampening is necessary
- For low to average speeds
- For edge loads
- When mechanical reaming of the ID is necessary
- High impact resistance
- Thick-walled according to DIN 1850



- For applications in wet areas
 - iglide® H
- When very high precision is necessary
 - iglide® P
- For very smooth shafts
 - iglide® J



Available from stock

Detailed information about delivery time online.



max. +176°F
min. -40°F



Price breaks online

No minimum order.



Ø 1/8 to 3 inches
more dimensions on request



Typical application areas

- Agricultural industry
- Textile technology
- Furniture/industrial design
- Doors and gates
- Machine building etc.



Ø 1 to 75 mm
more dimensions on request



iglide® M250 - Technical Data

 iglide®
M250

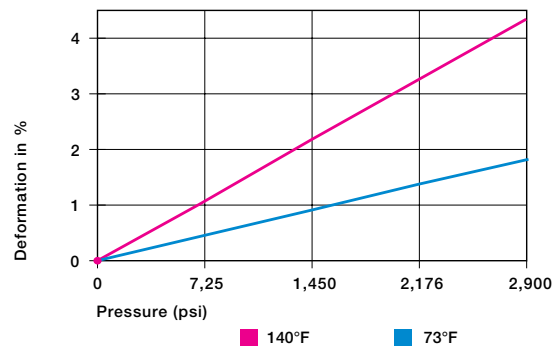
Material Properties Table

General Properties	Unit	iglide® M250	Testing Method
Density	g/cm ³	1.14	
Color		charcoal	
Max. moisture absorption at 73°F / 50% r.h.	% weight	1.4	DIN 53495
Max. moisture absorption	% weight	7.6	
Coefficient of friction, dynamic against steel	μ	0.18 - 0.40	
pv value, max. (dry)	psi x fpm	3,400	
Mechanical Properties			
Modulus of elasticity	psi	391,600	DIN 53457
Tensile strength at 68°F	psi	16,240	DIN 53452
Compressive strength	psi	7,542	
Permissible static surface pressure (68°F)	psi	2,901	
Shore D-hardness		79	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	176	
Max. application temperature, short-term	°F	338	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	10	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹³	DIN IEC 93
Surface resistance	Ω	> 10 ¹¹	DIN 53482

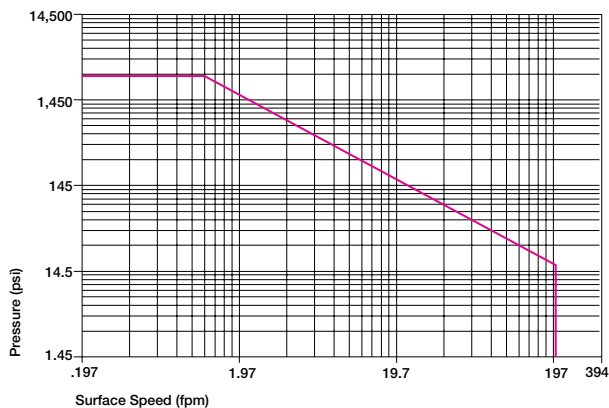
Compressive Strength

iglide® M250 plain bearings can withstand radial loads of a maximum 2900 psi. The material deformation is below 2% at room temperature. Compared with other iglide® materials, iglide® M250 bearings are highly elastic. The elasticity of M250 allows it to revert to its original shape. Plastic deformation is minimal up to the permissible surface pressure.

► Compressive Strength, Page 63



Deformation under load and temperature



Permissible pv value for iglide® M250 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® M250 is manufactured standard as a thick walled bearing. iglide® M250 is best suited for low to medium surface speeds. The maximum permissible continuous speed for dry running applications is 157 fpm (rotating) or 492 fpm (linear).

- Surface speed, Page 64
- pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	157	393
Oscillating	118	275
Linear	492	984

Maximum surface speeds

iglide®
M250

iglide® M250 - Technical Data

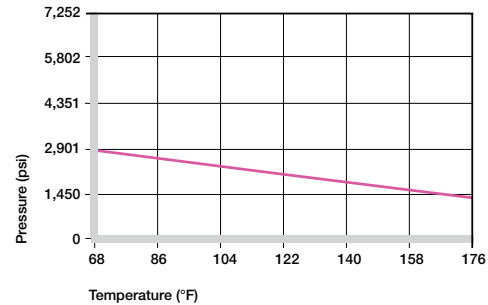
Temperatures

The maximum permissible short-term temperature is 338°F. However, iglide® M250 plain bearings may only be exposed to this temperature without any additional load. The long-term permissible application temperature is 176°F. This is also the location of the wear limit, i.e. the temperature at which the wear increases exponentially.

► Applications Temperatures, Page 67

iglide® M250	Application Temperature
Minimum	- 40°F
Max. long-term	+176°F
Max. short-term	+338°F
Additional axial securing	+140°F

Temperature limits for iglide® M250



Recommended maximum permissible static surface pressure of iglide® M250 as a result of the temperature

Friction and Wear

The coefficient of friction μ of a plain bearing is among other things, influenced by the surface speed and the load. If the load stays constant, then the coefficient of friction increases with increasing speed.

On the other hand, an increase in the load at constant speed can result in a reduction in the coefficient of friction.

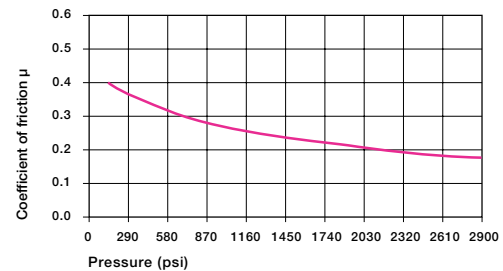
Friction and wear are also greatly dependent on the surface of the shaft. For iglide® M250 a ground surface with an average roughness of 24 rms is recommended for the shaft.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



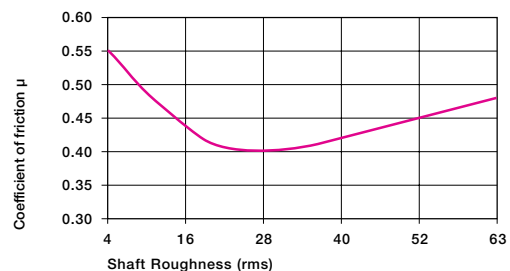
Coefficient of friction of iglide® M250 as a result of the surface speed; p = 108 psi



Coefficient of friction of iglide® M250 as a result of the pressure, v = 1.97 fpm

iglide® M250	Coefficient of Friction
Dry	0.18 - 0.40
Grease	0.09
Oil	0.04
Water	0.04

Coefficients of friction iglide® M250 against steel (Shaft finish = 40 rms, 50 HRC)



Coefficient of friction for iglide® M250 as a result of the shaft surface (shaft Cold Rolled Steel)

iglide® M250 - Technical Data

iglide®
M250

Shaft Materials

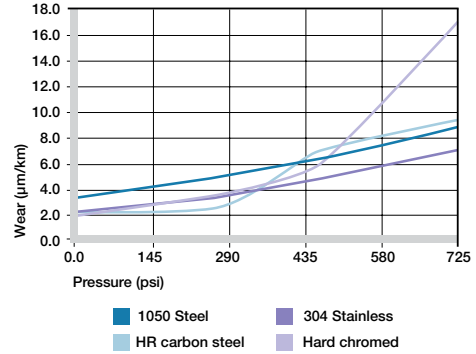
The graphs show results of testing different shaft materials with plain bearings made of iglide® M250.

Up to loads of 290 psi, the shaft material plays a relatively small role for rotational movements. The graph below best illustrates which shaft materials are best suited for smaller loads.

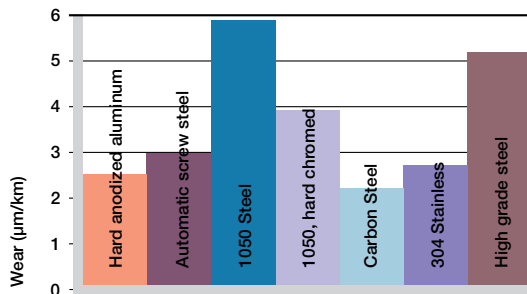
If the load increases, the wear of a bearing clearly increases. Therefore, a suitable shaft material must be considered for higher loads. These are hardened shafts, such as, for example, Cold Rolled Steel or hard-chromed shafts.

The graph makes it clear that iglide® M250 is considerably better for rotational than for oscillating operation. However, it must be mentioned that in oscillating movements, often the vibrations that act on the bearings are especially high. Here, iglide® M250 can utilize its special dampening properties. In our test, these vibrations are excluded so that the comparison between rotation and oscillating operation is captured first.

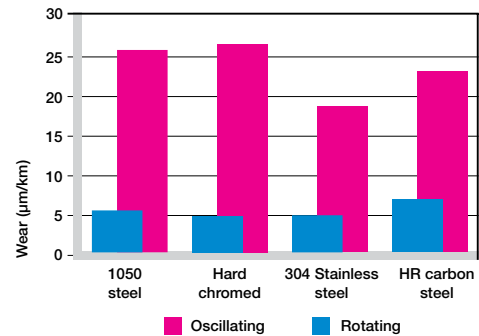
► Shaft Materials, Page 71



Wear of iglide® M250 with different shaft materials in rotational operation



Wear for iglide® M250, rotating with different shaft materials, p = 108 psi, v=98 fpm

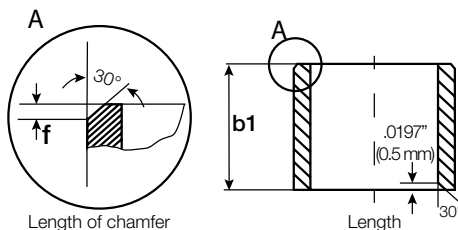


Wear for oscillating and rotating applications with different shaft materials at p = 290 psi

Installation Tolerances

iglide® M250 plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 / -0.0071	f = .012 → d1 .040" - .236"
0.2362 to 0.3937	-0.0000 / -0.0087	f = .019 → d1 > .236" - .472"
0.3937 to 0.7086	-0.0000 / -0.0106	f = .031 → d1 > .472" - 1.18"
0.7086 to 1.1811	-0.0000 / -0.0130	f = .047 → d1 > 1.18"
1.1811 to 1.9685	-0.0000 / -0.0154	
1.9685 to 3.1496	-0.0000 / -0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 / -140	f = 0.3 → d1 1 - 6 mm
> 3 to 6	-0 / -180	f = 0.5 → d1 > 6 - 12 mm
> 6 to 10	-0 / -220	f = 0.8 → d1 > 12 - 30 mm
>10 to 18	-0 / -270	f = 1.2 → d1 > 30 mm
>18 to 30	-0 / -330	
>30 to 50	-0 / -390	
>50 to 80	-0 / -460	

iglide® M250 - Technical Data

Chemical & Moisture Resistance

iglide® M250 plain bearings have a good resistance to chemicals. They are resistant to most lubricants. They are not affected by most weak organic and inorganic acids

The moisture absorption of iglide® M250 plain bearings is approximately 1.4% in standard atmosphere. The saturation limit in water is 7.5%. This must be taken into account along with other applicable conditions.

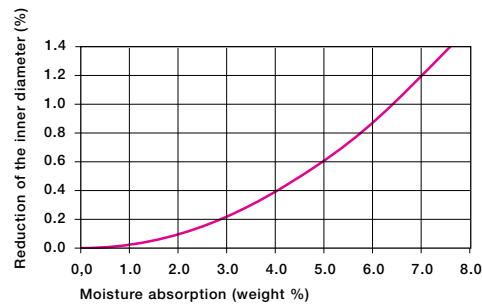
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+ to 0
Hydrocarbon, chlorinated	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to -
Strong acids	-
Weak alkaline	+
Strong alkaline	0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® M250

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® M250 plain bearings

Radiation Resistance

Plain bearings made from iglide® M250 can be used conditionally under radioactive radiation. They are resistant to radiation up to a radiation intensity of 1000 Gy.

Vacuum

In a vacuum environment, the iglide® M250 plain bearing releases moisture as vapor. The relatively high moisture absorption of the bearing allows only limited use in the vacuum.

UV Resistance

iglide® M250 plain bearings are permanently resistant to UV radiation.

Electrical Properties

iglide® M250 plain bearings are electrically insulating.

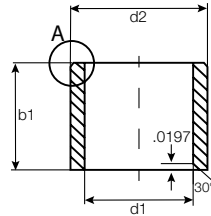
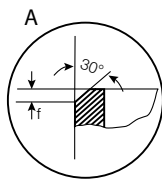
iglide® M250

Specific volume resistance	> 10 ¹³ Ωcm
Surface resistance	> 10 ¹¹ Ω

Electrical properties of iglide® M250

iglide® M250 - Product Range

Sleeve bearing - Inch

 iglide®
M250

Order key

Type		Dimensions		
M	S	I	-01	03-02
iglide® material	Form S (sleeve)	Inch	Inner-Ø d1 (inch)	Outer-Ø d2 (inch)
				Length b1 (inch)

 For tolerance values
 please refer to page 139

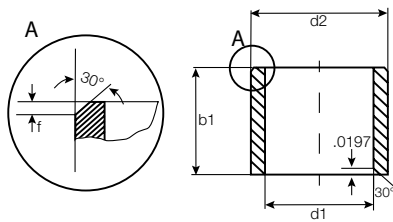
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size			
				Max.	Min.	Max.	Min.	Max.	Min.		
MSI-0203-02	1/8	3/16	1/8	.1280	.1262	.1880	.1875	.1250	.1241		
MSI-0203-04	1/8	3/16	1/4			.1880	.1875	.1250	.1241		
MSI-0204-02	1/8	1/4	1/8	.1280	.1262	.2515	.2510	.1250	.1241		
MSI-0204-03	1/8	1/4	3/16			.2515	.2510	.1250	.1241		
MSI-0204-04	1/8	1/4	1/4			.2515	.2510	.1250	.1241		
MSI-0204-06	1/8	1/4	3/8			.2515	.2510	.1250	.1241		
MSI-0304-04	3/16	1/4	1/4	.1905	.1887	.2515	.2510	.1875	.1866		
MSI-0304-06	3/16	1/4	3/8			.2515	.2510	.1875	.1866		
MSI-0304-08	3/16	1/4	1/2			.2515	.2510	.1875	.1866		
MSI-0305-02	3/16	5/16	1/8	.1905	.1887	.3140	.3135	.1875	.1866		
MSI-0305-03	3/16	5/16	3/16			.3140	.3135	.1875	.1866		
MSI-0305-04	3/16	5/16	1/4			.3140	.3135	.1875	.1866		
MSI-0305-05	3/16	5/16	5/16			.3140	.3135	.1875	.1866		
MSI-0305-06	3/16	5/16	3/8			.3140	.3135	.1875	.1866		
MSI-0305-08	3/16	5/16	1/2			.3140	.3135	.1875	.1866		
MSI-0405-03	1/4	5/16	3/16			.2539	.2516	.3140	.3135	.2500	.2491
MSI-0405-04	1/4	5/16	1/4					.3140	.3135	.2500	.2491
MSI-0405-06	1/4	5/16	3/8	.3140	.3135			.2500	.2491		
MSI-0405-08	1/4	5/16	1/2	.3140	.3135			.2500	.2491		
MSI-0406-02	1/4	3/8	1/8	.2539	.2516	.3765	.3760	.2500	.2491		
MSI-0406-03	1/4	3/8	3/16			.3765	.3760	.2500	.2491		
MSI-0406-04	1/4	3/8	1/4			.3765	.3760	.2500	.2491		
MSI-0406-05	1/4	3/8	5/16			.3765	.3760	.2500	.2491		
MSI-0406-06	1/4	3/8	3/8			.3765	.3760	.2500	.2491		
MSI-0406-08	1/4	3/8	1/2			.3765	.3760	.2500	.2491		
MSI-0406-10	1/4	3/8	5/8			.3765	.3760	.2500	.2491		
MSI-0406-12	1/4	3/8	3/4			.3765	.3760	.2500	.2491		
MSI-0506-03	5/16	3/8	3/16			.3164	.3141	.3765	.3760	.3125	.3116
MSI-0506-04	5/16	3/8	1/4					.3765	.3760	.3125	.3116
MSI-0506-06	5/16	3/8	3/8	.3765	.3760			.3125	.3116		
MSI-0506-08	5/16	3/8	1/2	.3765	.3760			.3125	.3116		
MSI-0507-03	5/16	7/16	3/16	.3164	.3141	.4390	.4385	.3125	.3116		
MSI-0507-04	5/16	7/16	1/4			.4390	.4385	.3125	.3116		
MSI-0507-05	5/16	7/16	5/16			.4390	.4385	.3125	.3116		
MSI-0507-06	5/16	7/16	3/8			.4390	.4385	.3125	.3116		
MSI-0507-08	5/16	7/16	1/2			.4390	.4385	.3125	.3116		
MSI-0507-10	5/16	7/16	5/8			.4390	.4385	.3125	.3116		

iglide®
M250

iglide® M250 - Product Range

Sleeve bearing - Inch


Order key

Type	Dimensions
M S I -01 03-02	
iglide® material	
Form S (sleeve)	
Inch	
Inner-Ø d1 (inch)	
Outer-Ø d2 (inch)	
Length b1 (inch)	

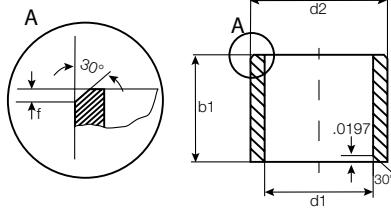
 For tolerance values
please refer to page 139

*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Max.	Min.	Max.	Min.	Max.	Min.
MSI-0507-12	5/16	7/16	3/4	.3164	.3141	.4390	.4385	.3125	.3116
MSI-0607-04	3/8	7/16	1/4	.3789	.3766	.4390	.4385	.3750	.3741
MSI-0607-06	3/8	7/16	3/8			.4390	.4385	.3750	.3741
MSI-0607-08	3/8	7/16	1/2			.4390	.4385	.3750	.3741
MSI-0608-03	3/8	1/2	3/16			.5015	.5010	.3750	.3741
MSI-0608-04	3/8	1/2	1/4	.3789	.3766	.5015	.5010	.3750	.3741
MSI-0608-05	3/8	1/2	5/16			.5015	.5010	.3750	.3741
MSI-0608-06	3/8	1/2	3/8			.5015	.5010	.3750	.3741
MSI-0608-08	3/8	1/2	1/2			.5015	.5010	.3750	.3741
MSI-0608-10	3/8	1/2	5/8			.5015	.5010	.3750	.3741
MSI-0608-12	3/8	1/2	3/4			.5015	.5010	.3750	.3741
MSI-0608-16	3/8	1/2	1			.5015	.5010	.3750	.3741
MSI-0709-06	7/16	9/16	3/8			.4422	.4395	.5635	.5625
MSI-0709-08	7/16	9/16	1/2	.5635	.5625			.4375	.4365
MSI-0810-04	1/2	5/8	1/4	.5047	.5020	.6260	.6250	.5000	.4990
MSI-0810-05	1/2	5/8	5/16			.6260	.6250	.5000	.4990
MSI-0810-06	1/2	5/8	3/8			.6260	.6250	.5000	.4990
MSI-0810-08	1/2	5/8	1/2			.6260	.6250	.5000	.4990
MSI-0810-10	1/2	5/8	5/8			.6260	.6250	.5000	.4990
MSI-0810-12	1/2	5/8	3/4			.6260	.6250	.5000	.4990
MSI-0810-16	1/2	5/8	1			.6260	.6250	.5000	.4990
MSI-1012-04	5/8	3/4	1/4	.6297	.6270	.7510	.7500	.6250	.6240
MSI-1012-06	5/8	3/4	3/8			.7510	.7500	.6250	.6240
MSI-1012-08	5/8	3/4	1/2			.7510	.7500	.6250	.6240
MSI-1012-10	5/8	3/4	5/8			.7510	.7500	.6250	.6240
MSI-1012-12	5/8	3/4	3/4			.7510	.7500	.6250	.6240
MSI-1012-16	5/8	3/4	1			.7510	.7500	.6250	.6240
MSI-1012-26	5/8	3/4	1 5/8			.7510	.7500	.6250	.6240
MSI-1013-06	5/8	13/16	3/8	.6297	.6270	.8135	.8125	.6250	.6240
MSI-1013-08	5/8	13/16	1/2			.8135	.8125	.6250	.6240
MSI-1013-10	5/8	13/16	5/8			.8135	.8125	.6250	.6240
MSI-1013-12	5/8	13/16	3/4			.8135	.8125	.6250	.6240
MSI-1013-16	5/8	13/16	1	.8135	.8125	.6250	.6240		
MSI-1113-12	11/16	13/16	3/4	.6921	.6894	.8135	.8125	.6875	.6865
MSI-1113-14	11/16	13/16	7/8			.8135	.8125	.6875	.6865
MSI-1113-16	11/16	13/16	1			.8135	.8125	.6875	.6865
MSI-1214-05	3/4	7/8	5/16	.7559	.7525	.8760	.8750	.7500	.7490

iglide® M250 - Product Range

Sleeve bearing - Inch

 iglide®
M250

Order key

Type	Dimensions
M S I	-01 03-02
iglide® material	Form S (sleeve)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

 For tolerance values
 please refer to page 139

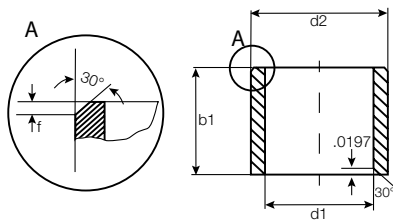
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Max.	Min.	Max.	Min.	Max.	Min.
MSI-1214-06	3/4	7/8	3/8	.7559	.7525	.8760	.8750	.7500	.7490
MSI-1214-12	3/4	7/8	3/4			.8760	.8750	.7500	.7490
MSI-1214-16	3/4	7/8	1			.8760	.8750	.7500	.7490
MSI-1214-24	3/4	7/8	1 1/2			.8760	.8750	.7500	.7490
MSI-1216-06	3/4	1	3/8	.7559	.7525	1.0010	1.0000	.7500	.7490
MSI-1216-08	3/4	1	1/2			1.0010	1.0000	.7500	.7490
MSI-1216-10	3/4	1	5/8			1.0010	1.0000	.7500	.7490
MSI-1216-12	3/4	1	3/4			1.0010	1.0000	.7500	.7490
MSI-1216-16	3/4	1	1			1.0010	1.0000	.7500	.7490
MSI-1216-20	3/4	1	1 1/4			1.0010	1.0000	.7500	.7490
MSI-1216-24	3/4	1	1 1/2			1.0010	1.0000	.7500	.7490
MSI-1316-08	13/16	1	1/2			.8184	.8151	1.0010	1.0000
MSI-1416-12	7/8	1	3/4	.8809	.8775	1.0010	1.0000	.8750	.8740
MSI-1416-16	7/8	1	1			1.0010	1.0000	.8750	.8740
MSI-1416-24	7/8	1	1 1/2			1.0010	1.0000	.8750	.8740
MSI-1418-08	7/8	1 1/8	1/2	.8809	.8775	1.1260	1.1250	.8750	.8740
MSI-1418-12	7/8	1 1/8	3/4			1.1260	1.1250	.8750	.8740
MSI-1418-16	7/8	1 1/8	1			1.1260	1.1250	.8750	.8740
MSI-1418-24	7/8	1 1/8	1 1/2			1.1260	1.1250	.8750	.8740
MSI-1618-12	1	1 1/8	3/4	1.0059	1.0025	1.1260	1.1250	1.0000	.9990
MSI-1618-16	1	1 1/8	1			1.1260	1.1250	1.0000	.9990
MSI-1618-24	1	1 1/8	1 1/2			1.1260	1.1250	1.0000	.9990
MSI-1620-08	1	1 1/4	1/2	1.0059	1.0025	1.2510	1.2500	1.0000	.9990
MSI-1620-10	1	1 1/4	5/8			1.2510	1.2500	1.0000	.9990
MSI-1620-12	1	1 1/4	3/4			1.2510	1.2500	1.0000	.9990
MSI-1620-16	1	1 1/4	1			1.2510	1.2500	1.0000	.9990
MSI-1620-24	1	1 1/4	1 1/2			1.2510	1.2500	1.0000	.9990
MSI-1620-32	1	1 1/4	2			1.2510	1.2500	1.0000	.9990
MSI-1822-16	1 1/8	1 3/8	1	1.1309	1.1275	1.3760	1.3750	1.1250	1.1240
MSI-1822-24	1 1/8	1 3/8	1 1/2			1.3760	1.3750	1.1250	1.1240
MSI-2024-12	1 1/4	1 1/2	3/4	1.2600	1.2531	1.5005	1.4995	1.2500	1.2490
MSI-2024-16	1 1/4	1 1/2	1			1.5005	1.4995	1.2500	1.2490
MSI-2024-22	1 1/4	1 1/2	1 3/8			1.5005	1.4995	1.2500	1.2490
MSI-2024-24	1 1/4	1 1/2	1 1/2			1.5005	1.4995	1.2500	1.2490
MSI-2024-32	1 1/4	1 1/2	2			1.5005	1.4995	1.2500	1.2490
MSI-2024-40	1 1/4	1 1/2	2 1/2			1.5005	1.4995	1.2500	1.2490
MSI-2226-16	1 3/8	1 5/8	1	1.3844	1.3782	1.6255	1.6245	1.3750	1.3740

iglide®
M250

iglide® M250 - Product Range

Sleeve bearing - Inch



Order key

Type	Dimensions
M S I -01 03-02	
iglide® material	Inner-Ø d1 (inch)
Form S (sleeve)	Outer-Ø d2 (inch)
Inch	Length b1 (inch)

For tolerance values
please refer to page 139

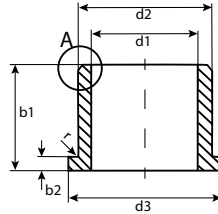
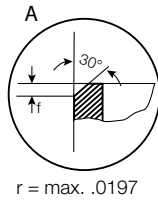
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Max.	Min.	Max.	Min.	Max.	Min.
MSI-2428-12	1 1/2	1 3/4	3/4	1.5100	1.5032	1.7505	1.7495	1.5000	1.4990
MSI-2428-16	1 1/2	1 3/4	1			1.7505	1.7495	1.5000	1.4990
MSI-2428-24	1 1/2	1 3/4	1 1/2			1.7505	1.7495	1.5000	1.4990
MSI-2428-40	1 1/2	1 3/4	2 1/2			1.7505	1.7495	1.5000	1.4990
MSI-2630-16	1 5/8	1 7/8	1	1.6350	1.6282	1.8755	1.8745	1.6250	1.6240
MSI-2832-08	1 3/4	2	1/2	1.7594	1.7531	2.0005	1.9995	1.7500	1.7490
MSI-2832-12	1 3/4	2	3/4			2.0005	1.9995	1.7500	1.7490
MSI-2832-16	1 3/4	2	1			2.0005	1.9995	1.7500	1.7490
MSI-2832-24	1 3/4	2	1 1/2			2.0005	1.9995	1.7500	1.7490
MSI-2832-40	1 3/4	2	2 1/2			2.0005	1.9995	1.7500	1.7490
MSI-3236-16	2	2 1/4	1	2.0100	2.0032	2.2505	2.2495	2.0000	1.9990
MSI-3236-24	2	2 1/4	1 1/2			2.2505	2.2495	2.0000	1.9990
MSI-3236-32	2	2 1/4	2			2.2505	2.2495	2.0000	1.9990
MSI-3236-40	2	2 1/4	2 1/2			2.2505	2.2495	2.0000	1.9990
MSI-4852-16	3	3 1/4	1	3.0114	3.0039	3.2505	3.2495	3.0000	2.9990

iglide® M250 - Product Range

Flange bearing - Inch

iglide®
M250



Order key

Type	Dimensions
M F I	-02 03-02
iglide® material	Form F (flange)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

For tolerance values
please refer to page 139

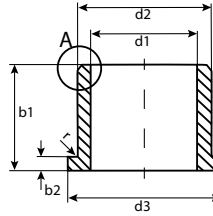
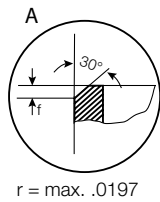
*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2	I.D. After Pressfit*		Housing Bore		Shaft Size			
						Max.	Min.	Max.	Min.	Max.	Min.		
MFI-0203-02	1/8	3/16	1/8	.3125	.032	.1280	.1262	.1885	.1880	.1250	.1241		
MFI-0203-04	1/8	3/16	1/4	.3125	.032			.1885	.1880	.1250	.1241		
MFI-0204-02	1/8	1/4	1/8	.360	.047	.1280	.1262	.2515	.2510	.1250	.1241		
MFI-0204-03	1/8	1/4	3/16	.360	.047			.2515	.2510	.1250	.1241		
MFI-0204-04	1/8	1/4	1/4	.360	.047			.2515	.2510	.1250	.1241		
MFI-0204-06	1/8	1/4	3/8	.360	.047			.2515	.2510	.1250	.1241		
MFI-0204-12	1/8	1/4	3/4	.360	.047			.2515	.2510	.1250	.1241		
MFI-0304-04	3/16	1/4	1/4	.375	.032	.1905	.1887	.2515	.2510	.1875	.1866		
MFI-0304-06	3/16	1/4	3/8	.375	.032			.2515	.2510	.1875	.1866		
MFI-0304-08	3/16	1/4	1/2	.375	.032			.2515	.2510	.1875	.1866		
MFI-0305-03	3/16	5/16	3/16	.370	.047	.1905	.1887	.3140	.3135	.1875	.1866		
MFI-0305-04	3/16	5/16	1/4	.370	.047			.3140	.3135	.1875	.1866		
MFI-0305-05	3/16	5/16	5/16	.370	.047			.3140	.3135	.1875	.1866		
MFI-0305-06	3/16	5/16	3/8	.370	.047			.3140	.3135	.1875	.1866		
MFI-0305-08	3/16	5/16	1/2	.370	.047			.3140	.3135	.1875	.1866		
MFI-0405-02	1/4	5/16	1/8	.4375	.032	.2539	.2516	.3140	.3135	.2500	.2491		
MFI-0405-03	1/4	5/16	3/16	.4375	.032			.3140	.3135	.2500	.2491		
MFI-0405-04	1/4	5/16	1/4	.4375	.032			.3140	.3135	.2500	.2491		
MFI-0405-06	1/4	5/16	3/8	.4375	.032			.3140	.3135	.2500	.2491		
MFI-0405-07	1/4	5/16	7/16	.4375	.032			.3140	.3135	.2500	.2491		
MFI-0405-08	1/4	5/16	1/2	.4375	.032			.3140	.3135	.2500	.2491		
MFI-0405-12	1/4	5/16	3/4	.4375	.032			.3140	.3135	.2500	.2491		
MFI-0406-02	1/4	3/8	1/8	.560	.047	.2539	.2516	.3765	.3760	.2500	.2491		
MFI-0406-03	1/4	3/8	3/16	.560	.047			.3765	.3760	.2500	.2491		
MFI-0406-04	1/4	3/8	1/4	.560	.047			.3765	.3760	.2500	.2491		
MFI-0406-05	1/4	3/8	5/16	.560	.047			.3765	.3760	.2500	.2491		
MFI-0406-06	1/4	3/8	3/8	.560	.047			.3765	.3760	.2500	.2491		
MFI-0406-08	1/4	3/8	1/2	.560	.047			.3765	.3760	.2500	.2491		
MFI-0406-10	1/4	3/8	5/8	.560	.047			.3765	.3760	.2500	.2491		
MFI-0406-12	1/4	3/8	3/4	.560	.047			.3765	.3760	.2500	.2491		
MFI-0506-02	5/16	3/8	1/8	.500	.032			.3164	.3141	.3765	.3760	.3125	.3116
MFI-0506-04	5/16	3/8	1/4	.500	.032					.3765	.3760	.3125	.3116
MFI-0506-06	5/16	3/8	3/8	.500	.032	.3765	.3760			.3125	.3116		
MFI-0506-08	5/16	3/8	1/2	.500	.032	.3765	.3760			.3125	.3116		
MFI-0506-15	5/16	3/8	15/16	.500	.062	.3765	.3760			.3125	.3116		
MFI-0507-03	5/16	7/16	3/16	.560	.062	.3164	.3141	.4390	.4385	.3125	.3116		
MFI-0507-04	5/16	7/16	1/4	.560	.062			.4390	.4385	.3125	.3116		

iglide®
M250

iglide® M250 - Product Range

Flange bearing - Inch


 For tolerance values
please refer to page 139

Order key

Type	Dimensions
M F I	-02 03-02
iglide® material	Form F (flange)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

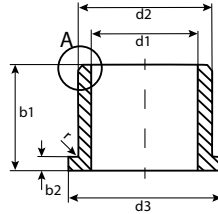
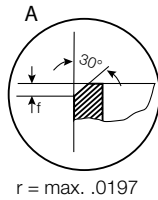
*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Max.	Min.	Max.	Min.	Max.	Min.
MFI-0507-05	5/16	7/16	5/16	.560	.062	.3164	.3141	.4390	.4385	.3125	.3116
MFI-0507-06	5/16	7/16	3/8	.560	.062			.4390	.4385	.3125	.3116
MFI-0507-08	5/16	7/16	1/2	.560	.062			.4390	.4385	.3125	.3116
MFI-0507-10	5/16	7/16	5/8	.560	.062			.4390	.4385	.3125	.3116
MFI-0507-12	5/16	7/16	3/4	.560	.062			.4390	.4385	.3125	.3116
MFI-0607-04	3/8	7/16	1/4	.5625	.032	.3789	.3766	.4390	.4385	.3750	.3741
MFI-0607-06	3/8	7/16	3/8	.5625	.032			.4390	.4385	.3750	.3741
MFI-0607-08	3/8	7/16	1/2	.5625	.032			.4390	.4385	.3750	.3741
MFI-0608-02	3/8	1/2	1/8	.625	.062	.3789	.3766	.5015	.5010	.3750	.3741
MFI-0608-03	3/8	1/2	3/16	.625	.062			.5015	.5010	.3750	.3741
MFI-0608-04	3/8	1/2	1/4	.625	.062			.5015	.5010	.3750	.3741
MFI-0608-05	3/8	1/2	5/16	.625	.062			.5015	.5010	.3750	.3741
MFI-0608-06	3/8	1/2	3/8	.625	.062			.5015	.5010	.3750	.3741
MFI-0608-08	3/8	1/2	1/2	.625	.062			.5015	.5010	.3750	.3741
MFI-0608-10	3/8	1/2	5/8	.625	.062			.5015	.5010	.3750	.3741
MFI-0608-12	3/8	1/2	3/4	.625	.062			.5015	.5010	.3750	.3741
MFI-0608-16	3/8	1/2	1	.625	.062			.5015	.5010	.3750	.3741
MFI-0608-17.5	3/8	1/2	1 3/32	.625	.062			.5015	.5010	.3750	.3741
MFI-0709-06	7/16	9/16	3/8	.687	.062			.4422	.4395	.5635	.5625
MFI-0709-07	7/16	9/16	7/16	.687	.062	.5635	.5625			.4375	.4365
MFI-0709-08	7/16	9/16	1/2	.687	.062	.5635	.5625			.4375	.4365
MFI-0810-02	1/2	5/8	1/8	.875	.062	.5047	.5020	.6260	.6250	.5000	.4990
MFI-0810-04	1/2	5/8	1/4	.875	.062			.6260	.6250	.5000	.4990
MFI-0810-05	1/2	5/8	5/16	.875	.062			.6260	.6250	.5000	.4990
MFI-0810-06	1/2	5/8	3/8	.875	.062			.6260	.6250	.5000	.4990
MFI-0810-08	1/2	5/8	1/2	.875	.062			.6260	.6250	.5000	.4990
MFI-0810-10	1/2	5/8	5/8	.875	.062			.6260	.6250	.5000	.4990
MFI-0810-12	1/2	5/8	3/4	.875	.062			.6260	.6250	.5000	.4990
MFI-0810-16	1/2	5/8	1	.875	.062			.6260	.6250	.5000	.4990
MFI-1012-06	5/8	3/4	3/8	1.000	.062	.6297	.6270	.7510	.7500	.6250	.6240
MFI-1012-08	5/8	3/4	1/2	1.000	.062			.7510	.7500	.6250	.6240
MFI-1012-10	5/8	3/4	5/8	1.000	.062			.7510	.7500	.6250	.6240
MFI-1012-12	5/8	3/4	3/4	1.000	.062			.7510	.7500	.6250	.6240
MFI-1012-16	5/8	3/4	1	1.000	.062			.7510	.7500	.6250	.6240
MFI-1012-24	5/8	3/4	1 1/2	1.000	.062			.7510	.7500	.6250	.6240
MFI-1013-08	5/8	13/16	1/2	1.063	.156	.6297	.6270	.8135	.8125	.6250	.6240
MFI-1013-10	5/8	13/16	5/8	1.063	.156			.8135	.8125	.6250	.6240

iglide® M250 - Product Range

Flange bearing - Inch

iglide®
M250



Order key

Type	Dimensions
M F I	-02 03-02
iglide® material	Form F (flange)
Inch	Inch
	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

For tolerance values
please refer to page 139

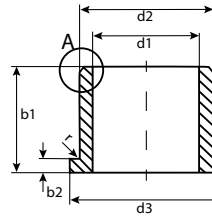
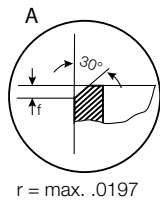
*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Max.	Min.	Max.	Min.	Max.	Min.
MFI-1013-12	5/8	13/16	3/4	1.063	.156	.6297	.6270	.8135	.8125	.6250	.6240
MFI-1013-16	5/8	13/16	1	1.063	.156			.8135	.8125	.6250	.6240
MFI-1214-06	3/4	7/8	3/8	1.125	.062	.7559	.7525	.8760	.8750	.7500	.7490
MFI-1214-08	3/4	7/8	1/2	1.125	.062			.8760	.8750	.7500	.7490
MFI-1214-12	3/4	7/8	3/4	1.125	.062			.8760	.8750	.7500	.7490
MFI-1214-16	3/4	7/8	1	1.125	.062			.8760	.8750	.7500	.7490
MFI-1214-24	3/4	7/8	1 1/2	1.125	.062			.8760	.8750	.7500	.7490
MFI-1216-08	3/4	1	1/2	1.250	.156	.7559	.7525	1.0010	1.0000	.7500	.7490
MFI-1216-10	3/4	1	5/8	1.250	.156			1.0010	1.0000	.7500	.7490
MFI-1216-12	3/4	1	3/4	1.250	.156			1.0010	1.0000	.7500	.7490
MFI-1216-16	3/4	1	1	1.250	.156			1.0010	1.0000	.7500	.7490
MFI-1216-24	3/4	1	1 1/2	1.250	.156			1.0010	1.0000	.7500	.7490
MFI-1216-32	3/4	1	2	1.250	.156			1.0010	1.0000	.7500	.7490
MFI-1416-12	7/8	1	3/4	1.250	.062	.8809	.8775	1.0010	1.0000	.8750	.8740
MFI-1416-16	7/8	1	1	1.250	.062			1.0010	1.0000	.8750	.8740
MFI-1416-24	7/8	1	1 1/2	1.250	.062			1.0010	1.0000	.8750	.8740
MFI-1418-08	7/8	1 1/8	1/2	1.375	.156	.8809	.8775	1.1260	1.1250	.8750	.8740
MFI-1418-12	7/8	1 1/8	3/4	1.375	.156			1.1260	1.1250	.8750	.8740
MFI-1418-16	7/8	1 1/8	1	1.375	.156			1.1260	1.1250	.8750	.8740
MFI-1418-24	7/8	1 1/8	1 1/2	1.375	.156			1.1260	1.1250	.8750	.8740
MFI-1618-03	1	1 1/8	3/16	1.375	.062	1.0059	1.0025	1.1260	1.1250	1.0000	.9990
MFI-1618-12	1	1 1/8	3/4	1.375	.062			1.1260	1.1250	1.0000	.9990
MFI-1618-16	1	1 1/8	1	1.375	.062			1.1260	1.1250	1.0000	.9990
MFI-1618-24	1	1 1/8	1 1/2	1.375	.062			1.1260	1.1250	1.0000	.9990
MFI-1620-08	1	1 1/4	1/2	1.500	.188	1.0059	1.0025	1.2510	1.2500	1.0000	.9990
MFI-1620-10	1	1 1/4	5/8	1.500	.188			1.2510	1.2500	1.0000	.9990
MFI-1620-12	1	1 1/4	3/4	1.500	.188			1.2510	1.2500	1.0000	.9990
MFI-1620-16	1	1 1/4	1	1.500	.188			1.2510	1.2500	1.0000	.9990
MFI-1620-24	1	1 1/4	1 1/2	1.500	.188			1.2510	1.2500	1.0000	.9990
MFI-2024-07	1 1/4	1 1/2	7/16	1.750	.200	1.2600	1.2531	1.5005	1.4995	1.2500	1.2490
MFI-2024-12	1 1/4	1 1/2	3/4	1.750	.200			1.5005	1.4995	1.2500	1.2490
MFI-2024-16	1 1/4	1 1/2	1	1.750	.200			1.5005	1.4995	1.2500	1.2490
MFI-2024-24	1 1/4	1 1/2	1 1/2	1.750	.200			1.5005	1.4995	1.2500	1.2490
MFI-2226-12	1 3/8	1 5/8	3/4	1.875	.125	1.3781	1.3759	1.6255	1.6245	1.3750	1.3740
MFI-2226-16	1 3/8	1 5/8	1	1.875	.125			1.6255	1.6245	1.3750	1.3740
MFI-2428-12	1 1/2	1 3/4	3/4	2.000	.125	1.5100	1.5032	1.7505	1.7495	1.5000	1.4990
MFI-2428-16	1 1/2	1 3/4	1	2.000	.125			1.7505	1.7495	1.5000	1.4990

iglide®
M250

iglide® M250 - Product Range

Flange bearing - Inch


 For tolerance values
please refer to page 139

Order key

Type	Dimensions
M F I	-02 03-02
iglide® material	Inner-Ø d1 (inch)
Form F (flange)	Outer-Ø d2 (inch)
Inch	Length b1 (inch)

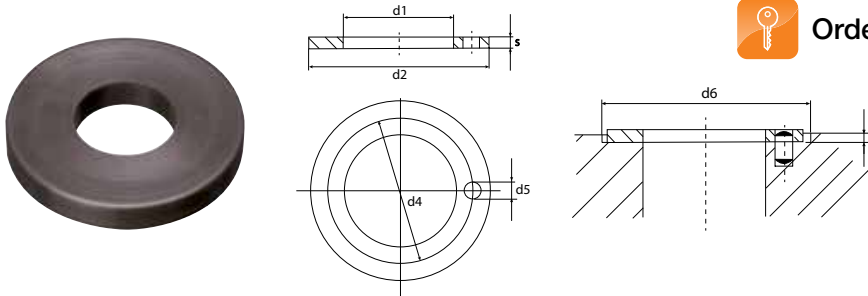
*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Max.	Min.	Max.	Min.	Max.	Min.
MFI-2428-24	1 1/2	1 3/4	1 1/2	2.000	.125	1.5100	1.5032	1.7505	1.7495	1.5000	1.4990
MFI-2630-16	1 5/8	1 7/8	1	2.125	.125	1.6350	1.6282	1.8755	1.8745	1.6250	1.6240
MFI-2832-12	1 3/4	2	3/4	2.250	.125	1.7595	1.7531	2.0005	1.9995	1.7500	1.7490
MFI-2832-16	1 3/4	2	1	2.250	.125			2.0005	1.9995	1.7500	1.7490
MFI-2832-24	1 3/4	2	1 1/2	2.250	.125			2.0005	1.9995	1.7500	1.7490
MFI-3236-16	2	2 1/4	1	2.500	.125	2.0100	2.0032	2.2512	2.2500	2.0000	1.9990
MFI-3236-24	2	2 1/4	1 1/2	2.500	.125			2.2512	2.2500	2.0000	1.9990
MFI-3236-32	2	2 1/4	2	2.500	.125			2.2512	2.2500	2.0000	1.9990

iglide® M250 - Product Range

Thrust washer - Inch

iglide®
M250



Order key

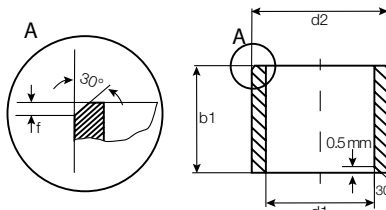
Type			Dimensions	
M	T	I	04	
iglide® material	Form T (washer)	Inch	Inner-Ø d1 (inch)	

Part Number	d1 (nominal)	d1		d2		s
		Max.	Min.	Max.	Min.	
MTI-04	1/4	.2609	.2550	.6200	.6094	.0900
MTI-05	5/16	.3271	.3189	.6874	.6767	.0900
MTI-06	3/8	.3850	.3780	.7409	.7394	.0900
MTI-08	1/2	.5101	.5030	.8200	.8070	.0900
MTI-10	5/8	.6371	.6300	1.0000	.9870	.0940
MTI-12	3/4	.7675	.7600	1.0630	1.0500	.0940
MTI-16	1	1.0200	1.0100	1.5000	1.4843	.1250
MTI-20	1 1/4	1.2998	1.2900	2.1400	2.1220	.0980
MTI-24	1 1/2	1.6000	1.5500	2.6000	2.5500	.1250

iglide®
M250

iglide® M250 - Product range

Sleeve bearing - Metric


Order key

Type	Dimensions
M S M -01 03-02	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
please refer to page 139

Dimensions according to ISO 3547-1 and special dimensions

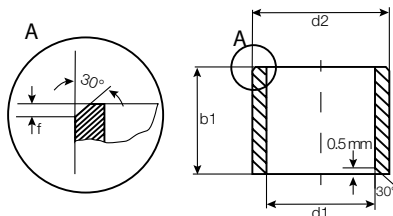
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
MSM-0103-02	1.0	3.0	2.0	1.020	1.080	3.000	3.080	.975	1.000
MSM-0104-02	1.5	4.0	2.0	1.520	1.580	4.000	4.012	1.475	1.500
MSM-0205-01	2.0	5.0	1.0	2.020	2.080	5.000	5.012	1.975	2.000
MSM-0205-02	2.0	5.0	2.0			5.000	5.012	1.975	2.000
MSM-0205-03	2.0	5.0	3.0			5.000	5.012	1.975	2.000
MSM-0206-03	2.5	6.0	3.0	2.520	2.580	6.000	6.012	2.475	2.500
MSM-0305-03	3.0	5.0	3.0	3.020	3.080	5.000	5.012	2.975	3.000
MSM-0305-04	3.0	5.0	4.0			5.000	5.012	2.975	3.000
MSM-0306-03	3.0	6.0	3.0	3.020	3.080	6.000	6.012	2.975	3.000
MSM-0306-04	3.0	6.0	4.0			6.000	6.012	2.975	3.000
MSM-0407-03	4.0	7.0	3.0	4.030	4.105	7.000	7.015	3.970	4.000
MSM-0407-04	4.0	7.0	4.0			7.000	7.015	3.970	4.000
MSM-0407-06	4.0	7.0	6.0			7.000	7.015	3.970	4.000
MSM-0408-04	4.0	8.0	4.0	4.030	4.105	8.000	8.015	3.970	4.000
MSM-0408-06	4.0	8.0	6.0			8.000	8.015	3.970	4.000
MSM-0508-04	5.0	8.0	4.0	5.030	5.105	8.000	8.015	4.970	5.000
MSM-0508-05	5.0	8.0	5.0			8.000	8.015	4.970	5.000
MSM-0508-08	5.0	8.0	8.0			8.000	8.015	4.970	5.000
MSM-0509-05	5.0	9.0	5.0	5.030	5.105	9.000	9.015	4.970	5.000
MSM-0509-08	5.0	9.0	8.0			9.000	9.015	4.970	5.000
MSM-0608-06	6.0	8.0	6.0	6.030	6.105	8.000	8.015	5.970	6.000
MSM-0608-08	6.0	8.0	8.0			8.000	8.015	5.970	6.000
MSM-0608-10	6.0	8.0	10.0			8.000	8.015	5.970	6.000
MSM-0609-06	6.0	9.0	6.0	6.030	6.105	9.000	9.015	5.970	6.000
MSM-0610-02	6.0	10.0	2.0	6.030	6.105	10.000	10.015	5.970	6.000
MSM-0610-04	6.0	10.0	4.0			10.000	10.015	5.970	6.000
MSM-0610-06	6.0	10.0	6.0			10.000	10.015	5.970	6.000
MSM-0610-08	6.0	10.0	8.0			10.000	10.015	5.970	6.000
MSM-0610-10	6.0	10.0	10.0			10.000	10.015	5.970	6.000
MSM-0611-04	6.0	11.0	4.0			6.030	6.105	11.000	11.018
MSM-0612-06	6.0	12.0	6.0	6.030	6.105	12.000	12.018	5.970	6.000
MSM-0612-10	6.0	12.0	10.0			12.000	12.018	5.970	6.000
MSM-0710-05	7.0	10.0	5.0	7.040	7.130	10.000	10.015	6.964	7.000
MSM-0710-08	7.0	10.0	8.0			10.000	10.015	6.964	7.000
MSM-0710-10	7.0	10.0	10.0			10.000	10.015	6.964	7.000
MSM-0711-16	7.0	11.0	16.0	7.040	7.130	11.000	11.018	6.964	7.000
MSM-0810-06	8.0	10.0	6.0	8.040	8.130	10.000	10.015	7.964	8.000

iglide® M250 - Product range

Sleeve bearing - Metric

iglide®
M250



Order key

Type	Dimensions
M S M-01 03-02	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

For tolerance values please refer to page 139

Dimensions according to ISO 3547-1 and special dimensions

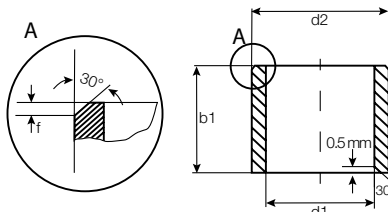
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
MSM-0810-08	8.0	10.0	8.0	8.040	8.130	10.000	10.015	7.964	8.000
MSM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
MSM-0810-12	8.0	10.0	12.0			10.000	10.015	7.964	8.000
MSM-0811-06	8.0	11.0	6.0	8.040	8.130	11.000	11.018	7.964	8.000
MSM-0811-08	8.0	11.0	8.0			11.000	11.018	7.964	8.000
MSM-0811-12	8.0	11.0	12.0			11.000	11.018	7.964	8.000
MSM-0812-04	8.0	12.0	4.0	8.040	8.130	12.000	12.018	7.964	8.000
MSM-0812-06	8.0	12.0	6.0			12.000	12.018	7.964	8.000
MSM-0812-08	8.0	12.0	8.0			12.000	12.018	7.964	8.000
MSM-0812-10	8.0	12.0	10.0			12.000	12.018	7.964	8.000
MSM-0812-12	8.0	12.0	12.0			12.000	12.018	7.964	8.000
MSM-0814-06	8.0	14.0	6.0			8.040	8.130	14.000	14.018
MSM-0814-10	8.0	14.0	10.0	14.000	14.018			7.964	8.000
MSM-0912-14	9.0	12.0	14.0	9.040	9.130	12.000	12.018	8.964	9.000
MSM-1014-06	10.0	14.0	6.0	10.040	10.130	14.000	14.018	9.964	10.000
MSM-1014-08	10.0	14.0	8.0			14.000	14.018	9.964	10.000
MSM-1014-10	10.0	14.0	10.0			14.000	14.018	9.964	10.000
MSM-1014-16	10.0	14.0	16.0			14.000	14.018	9.964	10.000
MSM-1016-06	10.0	16.0	6.0	10.040	10.130	16.000	16.018	9.964	10.000
MSM-1016-08	10.0	16.0	8.0			16.000	16.018	9.964	10.000
MSM-1016-10	10.0	16.0	10.0			16.000	16.018	9.964	10.000
MSM-1016-16	10.0	16.0	16.0			16.000	16.018	9.964	10.000
MSM-1016-50	10.0	16.0	50.0			16.000	16.018	9.964	10.000
MSM-1214-10	12.0	14.0	10.0			12.050	12.160	14.000	14.018
MSM-1214-12	12.0	14.0	12.0	14.000	14.018			11.957	12.000
MSM-1214-15	12.0	14.0	15.0	14.000	14.018			11.957	12.000
MSM-1214-20	12.0	14.0	20.0	14.000	14.018			11.957	12.000
MSM-1216-15	12.0	16.0	15.0	12.050	12.160	16.000	16.018	11.957	12.000
MSM-1216-20	12.0	16.0	20.0	12.050	12.160	16.000	16.018	11.957	12.000
MSM-1218-08	12.0	18.0	8.0	12.050	12.160	18.000	18.018	11.957	12.000
MSM-1218-10	12.0	18.0	10.0			18.000	18.018	11.957	12.000
MSM-1218-15	12.0	18.0	15.0			18.000	18.018	11.957	12.000
MSM-1218-20	12.0	18.0	20.0			18.000	18.018	11.957	12.000
MSM-1416-085	14.0	16.0	8.5	14.050	14.160	16.000	16.018	13.957	14.000
MSM-1416-10	14.0	16.0	10.0			16.000	16.018	13.957	14.000
MSM-1416-15	14.0	16.0	15.0			16.000	16.018	13.957	14.000
MSM-1416-20	14.0	16.0	20.0			16.000	16.018	13.957	14.000

iglide®
M250

iglide® M250 - Product range

Sleeve bearing - Metric


Order key

Type	Dimensions
M S M -01 03-02	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
please refer to page 139

Dimensions according to ISO 3547-1 and special dimensions

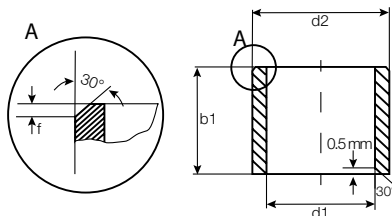
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
MSM-1416-25	14.0	16.0	25.0	14.050	14.160	16.000	16.018	13.957	14.000
MSM-1416-29	14.0	16.0	29.0			16.000	16.018	13.957	14.000
MSM-1418-20	14.0	18.0	20.0	14.050	14.160	18.000	18.018	13.957	14.000
MSM-1420-10	14.0	20.0	10.0	14.050	14.160	20.000	20.021	13.957	14.000
MSM-1420-15	14.0	20.0	15.0			20.000	20.021	13.957	14.000
MSM-1420-20	14.0	20.0	20.0			20.000	20.021	13.957	14.000
MSM-1517-10	15.0	17.0	10.0	15.050	15.160	17.000	17.018	14.957	15.000
MSM-1517-15	15.0	17.0	15.0			17.000	17.018	14.957	15.000
MSM-1517-20	15.0	17.0	20.0			17.000	17.018	14.957	15.000
MSM-1517-25	15.0	17.0	25.0			17.000	17.018	14.957	15.000
MSM-1521-10	15.0	21.0	10.0			15.050	15.160	21.000	21.021
MSM-1521-15	15.0	21.0	15.0	21.000	21.021			14.957	15.000
MSM-1521-20	15.0	21.0	20.0	21.000	21.021			14.957	15.000
MSM-1521-23	15.0	21.0	23.0	21.000	21.021			14.957	15.000
MSM-1618-12	16.0	18.0	12.0	16.050	16.160	18.000	18.018	15.957	16.000
MSM-1618-15	16.0	18.0	15.0			18.000	18.018	15.957	16.000
MSM-1618-20	16.0	18.0	20.0			18.000	18.018	15.957	16.000
MSM-1618-25	16.0	18.0	25.0			18.000	18.018	15.957	16.000
MSM-1620-20	16.0	20.0	20.0	16.050	16.160	20.000	20.021	15.957	16.000
MSM-1620-25	16.0	20.0	25.0			20.000	20.021	15.957	16.000
MSM-1620-30	16.0	20.0	30.0			20.000	20.021	15.957	16.000
MSM-1621-07	16.0	21.0	7.0	16.050	16.160	21.000	21.021	15.957	16.000
MSM-1622-12	16.0	22.0	12.0	16.050	16.160	22.000	22.021	15.957	16.000
MSM-1622-15	16.0	22.0	15.0			22.000	22.021	15.957	16.000
MSM-1622-16	16.0	22.0	16.0			22.000	22.021	15.957	16.000
MSM-1622-20	16.0	22.0	20.0			22.000	22.021	15.957	16.000
MSM-1622-25	16.0	22.0	25.0			22.000	22.021	15.957	16.000
MSM-1824-12	18.0	24.0	12.0	18.050	18.160	24.000	24.021	17.957	18.000
MSM-1824-20	18.0	24.0	20.0			24.000	24.021	17.957	18.000
MSM-1824-30	18.0	24.0	30.0			24.000	24.021	17.957	18.000
MSM-2023-10	20.0	23.0	10.0	20.065	20.195	23.000	23.021	19.948	20.000
MSM-2023-15	20.0	23.0	15.0			23.000	23.021	19.948	20.000
MSM-2023-20	20.0	23.0	20.0			23.000	23.021	19.948	20.000
MSM-2023-25	20.0	23.0	25.0			23.000	23.021	19.948	20.000
MSM-2023-30	20.0	23.0	30.0			23.000	23.021	19.948	20.000
MSM-2025-14	20.0	25.0	14.0	20.065	20.195	25.000	25.021	19.948	20.000
MSM-2025-20	20.0	25.0	20.0			25.000	25.021	19.948	20.000

iglide® M250 - Product range

Sleeve bearing - Metric

iglide®
M250



Order key

Type	Dimensions
M S	M-01 03-02
iglide® material	Form S (sleeve)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

For tolerance values please refer to page 139

Dimensions according to ISO 3547-1 and special dimensions

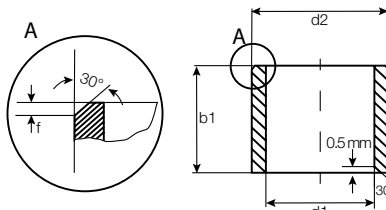
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
MSM-2025-30	20.0	25.0	30.0	20.065	20.195	25.000	25.021	19.948	20.000
MSM-2026-12	20.0	26.0	12.0	20.065	20.195	26.000	26.021	19.948	20.000
MSM-2026-15	20.0	26.0	15.0			26.000	26.021	19.948	20.000
MSM-2026-20	20.0	26.0	20.0			26.000	26.021	19.948	20.000
MSM-2026-30	20.0	26.0	30.0			26.000	26.021	19.948	20.000
MSM-2226-15	22.0	26.0	15.0	22.065	22.195	26.000	26.021	21.948	22.000
MSM-2228-10	22.0	28.0	10.0	22.065	22.195	28.000	28.021	21.948	22.000
MSM-2228-15	22.0	28.0	15.0			28.000	28.021	21.948	22.000
MSM-2228-20	22.0	28.0	20.0			28.000	28.021	21.948	22.000
MSM-2228-30	22.0	28.0	30.0			28.000	28.021	21.948	22.000
MSM-2430-15	24.0	30.0	15.0			24.065	24.195	30.000	30.025
MSM-2430-20	24.0	30.0	20.0	30.000	30.025			23.948	24.000
MSM-2430-30	24.0	30.0	30.0	30.000	30.025			23.948	24.000
MSM-2528-12	25.0	28.0	12.0	25.065	25.195	28.000	28.021	24.948	25.000
MSM-2528-15	25.0	28.0	15.0			28.000	28.021	24.948	25.000
MSM-2528-20	25.0	28.0	20.0			28.000	28.021	24.948	25.000
MSM-2528-25	25.0	28.0	25.0			28.000	28.021	24.948	25.000
MSM-2528-30	25.0	28.0	30.0			28.000	28.021	24.948	25.000
MSM-2530-20	25.0	30.0	20.0			25.065	25.195	30.000	30.025
MSM-2530-30	25.0	30.0	30.0	30.000	30.025			24.948	25.000
MSM-2530-40	25.0	30.0	40.0	30.000	30.025			24.948	25.000
MSM-2532-12	25.0	32.0	12.0	25.065	25.195			32.000	32.025
MSM-2532-20	25.0	32.0	20.0			32.000	32.025	24.948	25.000
MSM-2532-30	25.0	32.0	30.0			32.000	32.025	24.948	25.000
MSM-2532-35	25.0	32.0	35.0			32.000	32.025	24.948	25.000
MSM-2532-40	25.0	32.0	40.0			32.000	32.025	24.948	25.000
MSM-2630-20	26.0	30.0	20.0	26.065	26.195	30.000	30.025	25.948	26.000
MSM-2632-30	26.0	32.0	30.0	26.065	26.195	32.000	32.025	25.948	26.000
MSM-2734-20	27.0	34.0	20.0	27.065	27.195	34.000	34.025	26.948	27.000
MSM-2734-30	27.0	34.0	30.0			34.000	34.025	26.948	27.000
MSM-2734-40	27.0	34.0	40.0			34.000	34.025	26.948	27.000
MSM-2833-20	28.0	33.0	20.0	28.065	28.195	33.000	33.025	27.948	28.000
MSM-2836-20	28.0	36.0	20.0	28.065	28.195	36.000	36.025	27.948	28.000
MSM-2836-30	28.0	36.0	30.0			36.000	36.025	27.948	28.000
MSM-2836-40	28.0	36.0	40.0			36.000	36.025	27.948	28.000
MSM-3035-20	30.0	35.0	20.0			30.065	30.195	35.000	35.025
MSM-3035-40	30.0	35.0	40.0	35.000	35.025			29.948	30.000

iglide®
M250

iglide® M250 - Product range

Sleeve bearing - Metric



Order key

Type	Dimensions
M	S M-01 03-02
iglide® material	Form S (sleeve)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

For tolerance values
please refer to page 139

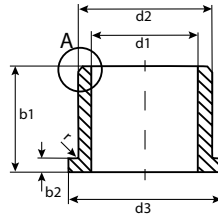
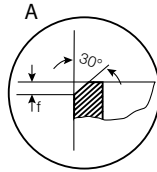
Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
MSM-3038-20	30.0	38.0	20.0	30.065	30.195	38.000	38.025	29.948	30.000
MSM-3038-30	30.0	38.0	30.0			38.000	38.025	29.948	30.000
MSM-3038-40	30.0	38.0	40.0			38.000	38.025	29.948	30.000
MSM-3040-40	30.0	40.0	40.0	30.065	30.195	40.000	40.025	29.948	30.000
MSM-3240-20	32.0	40.0	20.0	32.080	32.240	40.000	40.025	31.948	32.000
MSM-3240-30	32.0	40.0	30.0			40.000	40.025	31.948	32.000
MSM-3240-40	32.0	40.0	40.0			40.000	40.025	31.948	32.000
MSM-3542-50	35.0	42.0	50.0	35.080	35.240	42.000	42.025	34.948	35.000
MSM-4046-20	40.0	46.0	20.0	40.080	40.240	46.000	46.025	39.948	40.000
MSM-7580-60	75.0	80.0	60.0	75.100	75.290	80.000	80.030	74.926	75.000

iglide® M250 - Product range

Flange bearing - Metric

 iglide®
M250

Order key

Type	Dimensions
M F M	-01 03-02

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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 $r = \max. 0.5$

 For tolerance values
 please refer to page 139

Dimensions according to ISO 3547-1 and special dimensions

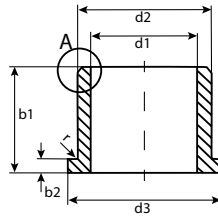
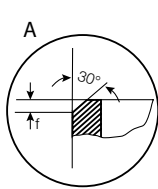
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
MFM-0103-02	1.0	3.0	5.0	2.0	1.00	1.020	1.080	3.000	3.080	.975	1.000
MFM-0104-02	1.5	4.0	6.0	2.0	1.00	1.520	1.580	4.000	4.012	1.475	1.500
MFM-0205-03	2.0	5.0	8.0	3.0	1.50	2.020	2.080	5.000	5.012	1.975	2.000
MFM-0206-03	2.5	6.0	9.0	3.0	1.50	2.520	2.580	6.000	6.012	2.475	2.500
MFM-0306-04	3.0	6.0	9.0	4.0	1.50	3.020	3.080	6.000	6.012	2.975	3.000
MFM-0408-04	4.0	8.0	12.0	4.0	2.0	4.030	4.105	8.000	8.015	3.970	4.000
MFM-0408-06	4.0	8.0	12.0	6.0	2.0			8.000	8.015	3.970	4.000
MFM-0408-08	4.0	8.0	12.0	8.0	2.0			8.000	8.015	3.970	4.000
MFM-0509-05	5.0	9.0	13.0	5.0	2.0	5.030	5.105	9.000	9.015	4.970	5.000
MFM-0509-06	5.0	9.0	13.0	6.0	2.0			9.000	9.015	4.970	5.000
MFM-0509-08	5.0	9.0	13.0	8.0	2.0			9.000	9.015	4.970	5.000
MFM-0610-04	6.0	10.0	14.0	4.0	2.0	6.030	6.105	10.000	10.015	5.970	6.000
MFM-0610-06	6.0	10.0	14.0	6.0	2.0			10.000	10.015	5.970	6.000
MFM-0610-10	6.0	10.0	14.0	10.0	2.0			10.000	10.015	5.970	6.000
MFM-0611-04	6.0	11.0	4.0	4.0	2.5	6.030	6.105	11.000	11.018	5.970	6.000
MFM-0612-06	6.0	12.0	14.0	6.0	3.0	6.030	6.105	12.000	12.018	5.970	6.000
MFM-0612-10	6.0	12.0	14.0	10.0	3.0			12.000	12.018	5.970	6.000
MFM-0711-08	7.0	11.0	15.0	8.0	2.0	7.040	7.130	11.000	11.018	6.964	7.000
MFM-0811-05	8.0	11.0	13.0	5.0	2.0	8.040	8.130	11.000	11.018	7.964	8.000
MFM-0811-08	8.0	11.0	13.0	8.0	2.0			11.000	11.018	7.964	8.000
MFM-0812-06	8.0	12.0	16.0	6.0	2.0	8.040	8.130	12.000	12.018	7.964	8.000
MFM-0812-08	8.0	12.0	16.0	8.0	2.0			12.000	12.018	7.964	8.000
MFM-0812-12	8.0	12.0	16.0	12.0	2.0			12.000	12.018	7.964	8.000
MFM-0814-06	8.0	14.0	18.0	6.0	3.0	8.040	8.130	14.000	14.018	7.964	8.000
MFM-0814-10	8.0	14.0	18.0	10.0	3.0			14.000	14.018	7.964	8.000
MFM-081416-06	8.0	14.0	16.0	6.0	3.0			14.000	14.018	7.964	8.000
MFM-081416-10	8.0	14.0	16.0	10.0	3.0			14.000	14.018	7.964	8.000
MFM-0914-06	9.0	14.0	19.0	6.0	2.0	9.040	9.130	14.000	14.018	8.964	9.000
MFM-0914-10	9.0	14.0	19.0	10.0	2.0			14.000	14.018	8.964	9.000
MFM-0914-14	9.0	14.0	19.0	14.0	2.0			14.000	14.018	8.964	9.000
MFM-1014-10	10.0	14.0	19.0	10.0	2.0	10.040	10.130	14.000	14.018	9.964	10.000
MFM-1014-14	10.0	14.0	17.5	14.0	1.0			14.000	14.018	9.964	10.000
MFM-1014-19	10.0	14.0	17.5	19.0	1.0			14.000	14.018	9.964	10.000
MFM-1014-24	10.0	14.0	17.5	24.0	1.0			14.000	14.018	9.964	10.000
MFM-1014-34	10.0	14.0	17.5	34.0	1.0			14.000	14.018	9.964	10.000
MFM-101419-08	10.0	14.0	34.0	8.0	1.0			14.000	14.018	9.964	10.000
MFM-101420-12	10.0	14.0	20.0	12.0	2.0			14.000	14.018	9.964	10.000

iglide®
M250

iglide® M250 - Product range

Flange bearing - Metric


Order key

Type	Dimensions
M F M -01 03-02	
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 $r = \max. 0.5$

 For tolerance values
please refer to page 139

Dimensions according to ISO 3547-1 and special dimensions

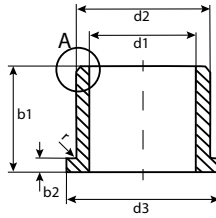
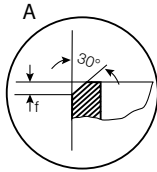
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3 d13	b1 h13	b2 -0,14	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
MFM-1016-06	10.0	16.0	22.0	6.0	3.0	10.040	10.130	16.000	16.018	9.964	10.000
MFM-1016-08	10.0	16.0	22.0	8.0	3.0			16.000	16.018	9.964	10.000
MFM-1016-10	10.0	16.0	22.0	10.0	3.0			16.000	16.018	9.964	10.000
MFM-1016-16	10.0	16.0	22.0	16.0	3.0			16.000	16.018	9.964	10.000
MFM-101620-06	10.0	16.0	20.0	6.0	3.0			16.000	16.018	9.964	10.000
MFM-101620-10	10.0	16.0	20.0	10.0	3.0			16.000	16.018	9.964	10.000
MFM-1216-10	12.0	16.0	22.0	10.0	2.0	12.050	12.160	16.000	16.018	11.957	12.000
MFM-1216-20	12.0	16.0	22.0	20.0	2.0			16.000	16.018	11.957	12.000
MFM-1218-08	12.0	18.0	24.0	8.0	3.0	12.050	12.160	18.000	18.018	11.957	12.000
MFM-1218-10	12.0	18.0	22.0	10.0	3.0			18.000	18.018	11.957	12.000
MFM-1218-12	12.0	18.0	24.0	12.0	3.0			18.000	18.018	11.957	12.000
MFM-1218-15	12.0	18.0	22.0	15.0	3.0			18.000	18.018	11.957	12.000
MFM-1218-20	12.0	18.0	22.0	20.0	3.0			18.000	18.018	11.957	12.000
MFM-1315-14	13.0	15.0	20.0	14.0	2.0			12.050	12.160	18.000	18.018
MFM-1420-07	14.0	20.0	25.0	7.0	3.0	14.050	14.160	20.000	20.021	13.957	14.000
MFM-1420-10	14.0	20.0	25.0	10.0	3.0			20.000	20.021	13.957	14.000
MFM-1420-15	14.0	20.0	25.0	15.0	3.0			20.000	20.021	13.957	14.000
MFM-1420-20	14.0	20.0	25.0	20.0	3.0			20.000	20.021	13.957	14.000
MFM-1521-10	15.0	21.0	27.0	10.0	3.0	15.050	15.160	21.000	21.021	14.957	15.000
MFM-1521-15	15.0	21.0	27.0	15.0	3.0			21.000	21.021	14.957	15.000
MFM-1521-20	15.0	21.0	27.0	20.0	3.0			21.000	21.021	14.957	15.000
MFM-1521-25	15.0	21.0	27.0	25.0	3.0			21.000	21.021	14.957	15.000
MFM-1618-12	16.0	18.0	24.0	12.0	1.0	16.050	16.160	18.000	18.021	15.957	16.000
MFM-1618-17	16.0	18.0	24.0	12.0	1.0			18.000	18.021	15.957	16.000
MFM-1622-12	16.0	22.0	28.0	12.0	3.0	16.050	16.160	22.000	22.021	15.957	16.000
MFM-1622-15	16.0	22.0	28.0	15.0	3.0			22.000	22.021	15.957	16.000
MFM-1622-20	16.0	22.0	28.0	20.0	3.0			22.000	22.021	15.957	16.000
MFM-1622-25	16.0	22.0	28.0	25.0	3.0			22.000	22.021	15.957	16.000
MFM-1824-08	18.0	24.0	30.0	8.0	3.0	18.050	18.160	24.000	24.021	17.957	18.000
MFM-1824-12	18.0	24.0	30.0	12.0	3.0			24.000	24.021	17.957	18.000
MFM-1824-18	18.0	24.0	30.0	18.0	3.0			24.000	24.021	17.957	18.000
MFM-1824-20	18.0	24.0	30.0	20.0	3.0			24.000	24.021	17.957	18.000
MFM-1824-30	18.0	24.0	30.0	30.0	3.0			24.000	24.021	17.957	18.000
MFM-202628-12	20.0	26.0	28.0	12.0	3.0	20.065	20.195	26.000	26.021	19.948	20.000
MFM-2026-15	20.0	26.0	32.0	15.0	3.0			26.000	26.021	19.948	20.000
MFM-2026-20	20.0	26.0	32.0	20.0	3.0			26.000	26.021	19.948	20.000
MFM-2026-30	20.0	26.0	32.0	30.0	3.0			26.000	26.021	19.948	20.000

iglide® M250 - Product range

Flange bearing - Metric

iglide®
M250



Order key

Type		Dimensions		
M	F	M-01	03	02
iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)
				Length b1 (mm)

$r = \max. 0.5$

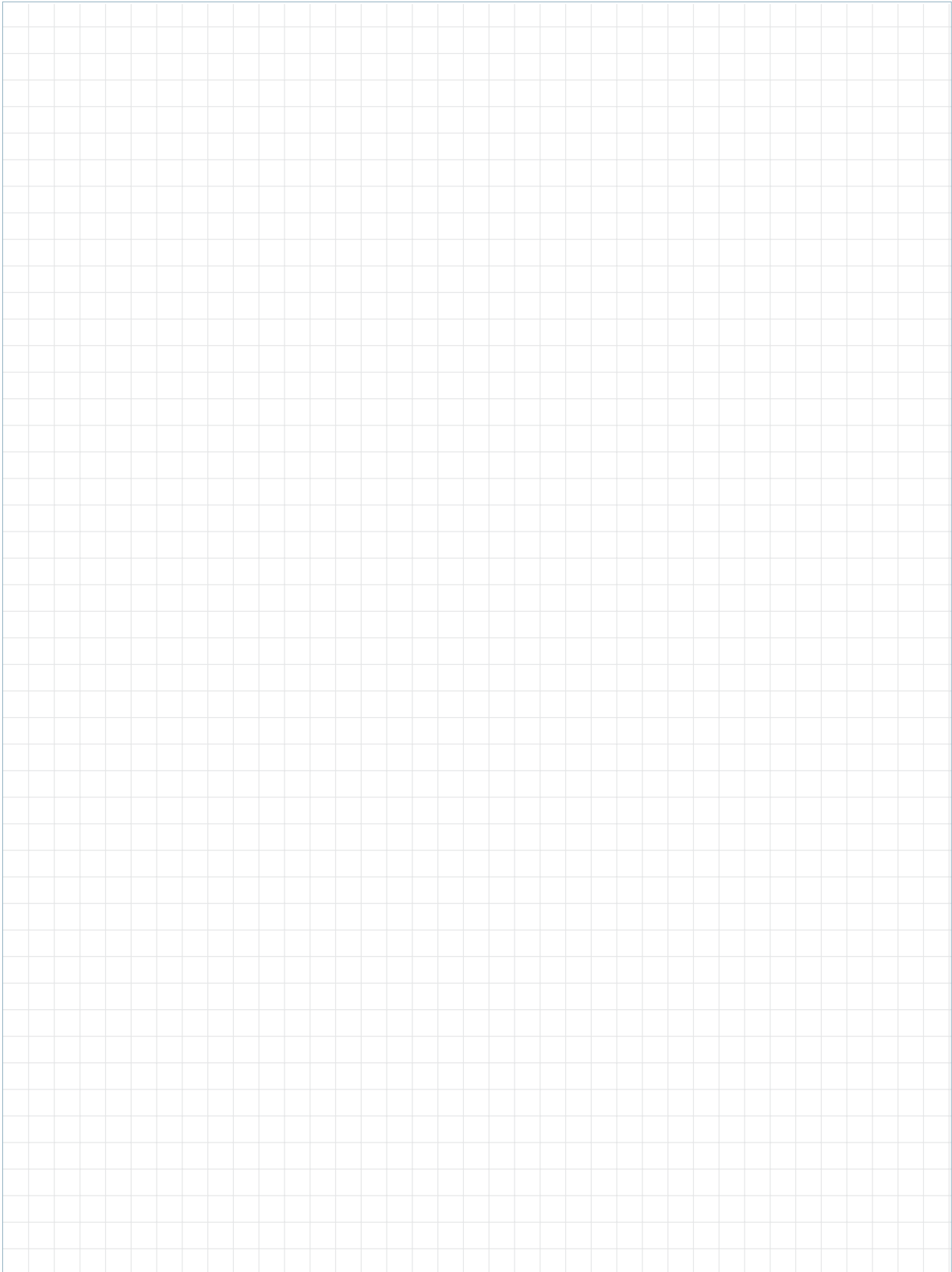
For tolerance values
please refer to page 139

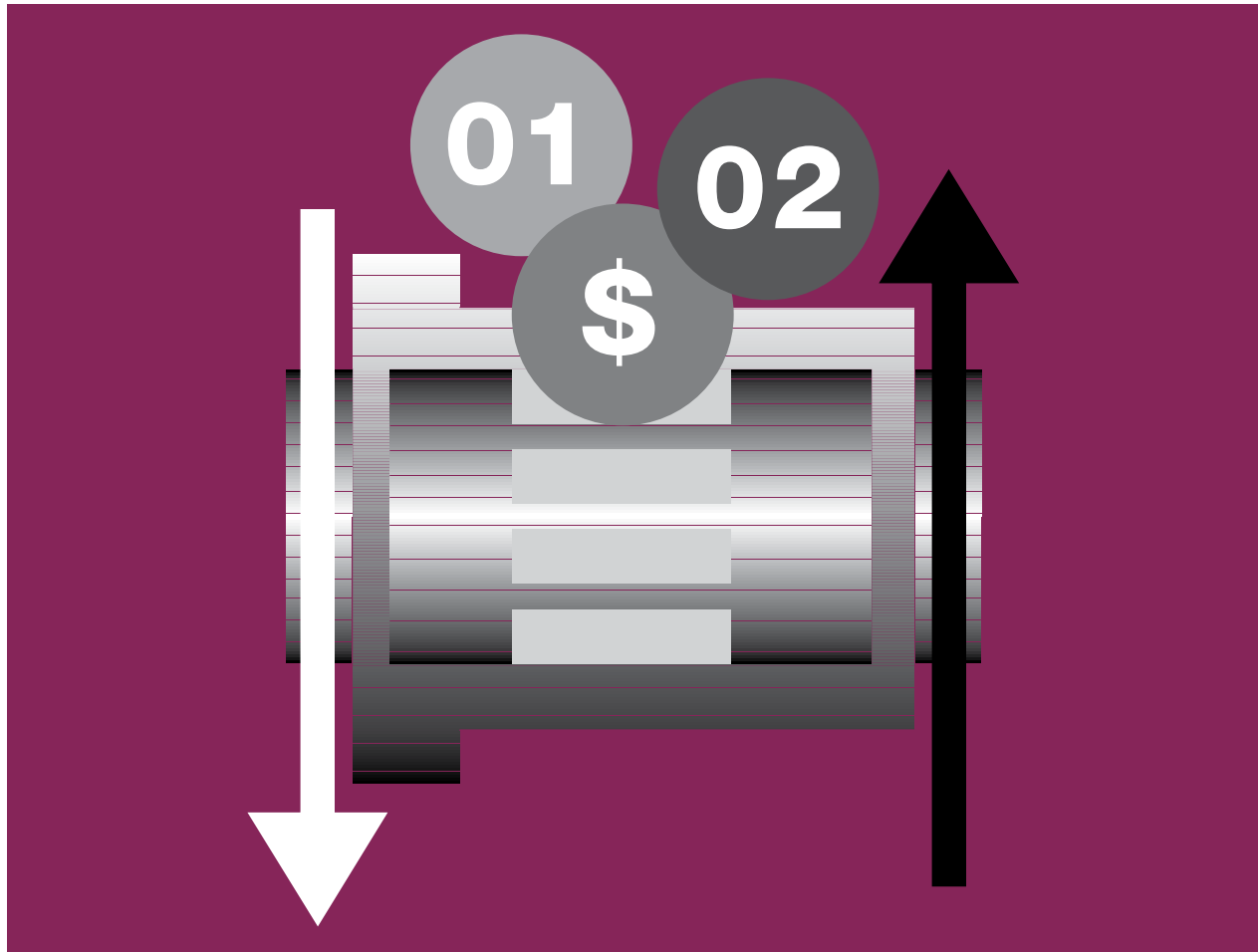
Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3 d13	b1 h13	b2 -0,14	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
MFM-2228-15	22.0	28.0	34.0	15.0	3.0	22.065	22.195	28.000	28.021	21.948	22.000
MFM-2228-20	22.0	28.0	34.0	20.0	3.0			28.000	28.021	21.948	22.000
MFM-2228-30	22.0	28.0	34.0	30.0	3.0			28.000	28.021	21.948	22.000
MFM-2430-15	24.0	30.0	36.0	15.0	3.0	24.065	24.195	30.000	30.025	23.948	24.000
MFM-2430-20	24.0	30.0	36.0	20.0	3.0			30.000	30.025	23.948	24.000
MFM-2430-30	24.0	30.0	36.0	30.0	3.0			30.000	30.025	23.948	24.000
MFM-2532-12	25.0	32.0	38.0	12.0	4.0	25.065	25.195	32.000	32.025	24.948	25.000
MFM-2532-15	25.0	32.0	38.0	15.0	4.0			32.000	32.025	24.948	25.000
MFM-2532-20	25.0	32.0	38.0	20.0	4.0			32.000	32.025	24.948	25.000
MFM-2532-30	25.0	32.0	38.0	30.0	4.0			32.000	32.025	24.948	25.000
MFM-2532-40	25.0	32.0	38.0	40.0	4.0	25.065	25.195	32.000	32.025	24.948	25.000
MFM-2734-20	27.0	34.0	40.0	20.0	4.0	27.065	27.195	34.000	34.025	26.948	27.000
MFM-2734-30	27.0	34.0	40.0	30.0	4.0			34.000	34.025	26.948	27.000
MFM-2734-40	27.0	34.0	40.0	40.0	4.0			34.000	34.025	26.948	27.000
MFM-2836-20	28.0	36.0	42.0	20.0	4.0	28.065	28.195	36.000	36.025	27.948	28.000
MFM-2836-30	28.0	36.0	42.0	30.0	4.0			36.000	36.025	27.948	28.000
MFM-2836-40	28.0	36.0	42.0	40.0	4.0			36.000	36.025	27.948	28.000
MFM-3035-20	30.0	35.0	44.0	20.0	4.0	30.060	30.195	35.000	35.025	29.948	30.000
MFM-3038-20	30.0	38.0	44.0	20.0	4.0	30.065	30.195	38.000	38.025	29.948	30.000
MFM-3038-30	30.0	38.0	44.0	30.0	4.0			38.000	38.025	29.948	30.000
MFM-3038-40	30.0	38.0	44.0	40.0	4.0			38.000	38.025	29.948	30.000
MFM-3240-20	32.0	40.0	46.0	20.0	4.0	32.080	32.240	40.000	40.025	31.938	32.000
MFM-3240-30	32.0	40.0	46.0	30.0	4.0			40.000	40.025	31.938	32.000
MFM-3240-40	32.0	40.0	46.0	40.0	4.0			40.000	40.025	31.938	32.000

Notes





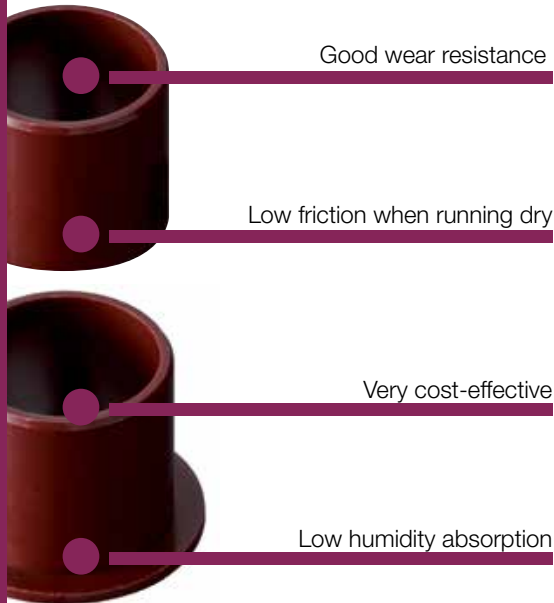
iglide® R

- Good wear resistance
- Low friction when running dry
- Very cost-effective
- Low moisture absorption
- Self-lubricating and maintenance-free

iglide®
R

iglide® R - Low-cost, low-wear

Cost-effective



In the development of iglide® R as a bearing material, high performance and a very low price were the top requirements. In particular, low coefficients of friction were needed at high speeds in dry running conditions. Plain bearings made of iglide® R are designed with a combination of solid lubricants. The iglide® R material achieves excellent low coefficients of friction while running dry, and it runs for the most part stick-slip free.



- If high wear resistance at low load is required
- If low friction at dry operation is needed
- If a highly cost-effective bearing is desired
- If edge loads occur
- If you are looking for low water absorption
- If PTFE and silicone are prohibited in the application



- When high pressure loads occur
 - iglide® G300
- When temperatures occur that are constantly greater than 194°F
 - iglide® G300
 - iglide® P
- When best wear resistance is required
 - iglide® J



Available from stock

Detailed information about delivery time online.



max. +194°F
min. -58°F



Price breaks online

No minimum order.



Ø 3/16 to 2 inches
more dimensions on request



Typical application areas

- Sports and leisure
- Furniture industry
- Model making
- Mechatronics etc.



Ø 2 to 35 mm
more dimensions on request



iglide® R - Technical Data

 iglide®
R

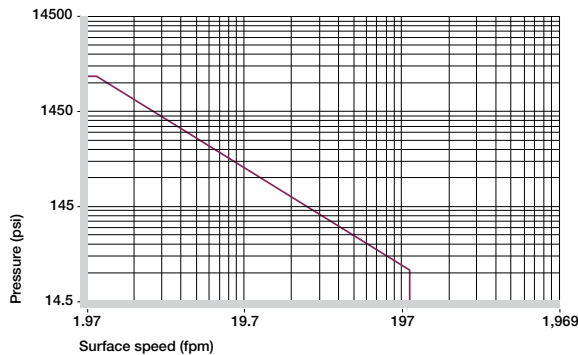
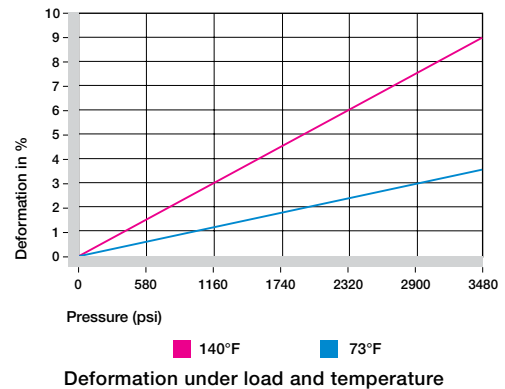
Material Properties Table

General Properties	Unit	iglide® R	Testing Method
Density	g/cm ³	1.39	
Color		Dark Red	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.2	DIN 53495
Max. moisture absorption	% weight	1.1	
Coefficient of friction, dynamic against steel	μ	0.08 - 0.26	
pv value, max. (dry)	psi x fpm	8,700	
Mechanical Properties			
Modulus of elasticity	psi	282,800	DIN 53457
Tensile strength at 68°F	psi	10,150	DIN 53452
Compressive strength	psi	9,863	
Permissible static surface pressure (68°F)	psi	3,336	
Shore D-hardness		77	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	194	
Max. application temperature, short-term	°F	230	
Min. application temperature	°F	-58	
Thermal conductivity	W/m x K	.25	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	11	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹²	DIN IEC 93
Surface resistance	Ω	> 10 ¹²	DIN 53482

Compressive Strength

iglide® R plain bearings were developed mainly for low to average radial loads. The graph shows the elastic deformation of iglide® R for radial loads. At the maximum permissible load of 3,335 psi, the deformation is approximately 3%. Plastic deformation is not detectable up to this value. However, it is also a result of the cycle time.

► Compressive strength, Page 63



Permissible pv value for iglide® R running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® R plain bearings are used at high surface speeds. For linear movements, short-term speeds up to 98.4 fpm are permissible. Please note that the given maximum values can only be achieved at the lowest pressure loads. These values show the speed at which friction causes a temperature increase to the continued use temperature limit.

► Surface speed, Page 64

► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	157	236
Oscillating	118	196
Linear	689	984

Maximum surface speeds

iglide®
R

iglide® R - Technical Data

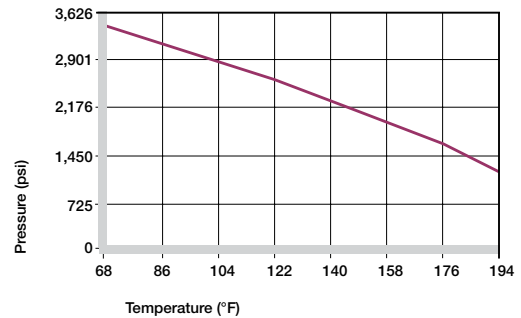
Temperatures

The maximum permissible short-term temperature is 230°F, and the long-term application temperature is 194°F. With increasing temperatures, the compression resistance of iglide® R plain bearings decreases. The ambient temperatures prevalent in the bearing system also have an effect on the bearing wear. With increasing temperatures, the wear increases.

► Application temperatures, Page 67

iglide® R	Application Temperature
Minimum	- 58°F
Max. long-term	+194°F
Max. short-term	+230°F
Additional axial securing	+122°F

Temperature limits for iglide® R



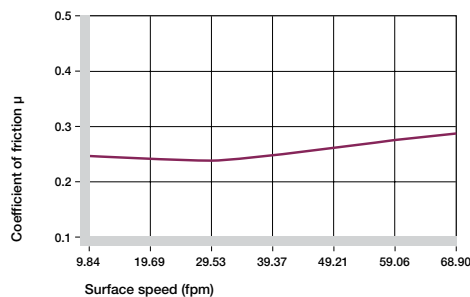
Recommended maximum permissible static surface pressure of iglide® R as a result of the temperature

Friction and Wear

Similar to wear resistance, the coefficient of friction decreases with increasing load. In contrast, higher speeds have little effect on the coefficient of friction of iglide® R plain bearings. iglide® R is especially suited for applications in which high pv values are predominantly caused by the high speed, and not as much by the surface pressure. The coefficient of friction of iglide® R plain bearings depends greatly on the shaft roughness. In the roughness range between 16-24 rms, the coefficient of friction reaches its optimal value. For values above and below this range, the friction of the bearing system increases quickly. Other shaft materials can be used without a large loss. Even with non metallic shafts, good results were obtained in tests. Ceramic and plastic shafts can also be used.

► Coefficients of friction and surfaces, Page 68

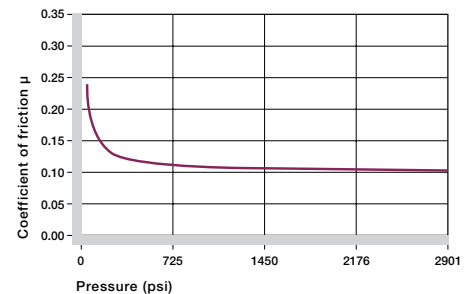
► Wear resistance, Page 69



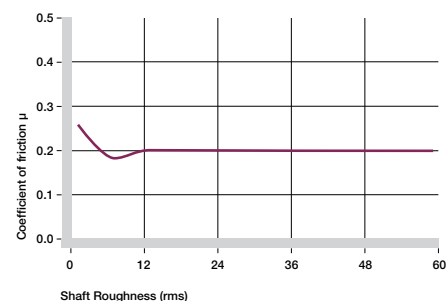
Coefficient of friction of iglide® R as a result of the surface speed; p = 108 psi

iglide® R	Coefficient of Friction
Dry	0.06 - 0.26
Grease	0.09
Oil	0.04
Water	0.04

Coefficients of friction iglide® R against steel
(Shaft finish = 40 rms, 50 HRC)



Coefficient of friction of iglide® R as a result of the load, v = 1.97 fpm



Coefficient of friction for iglide® R as a result of the shaft surface (shaft Cold Rolled Steel)

iglide® R - Technical Data

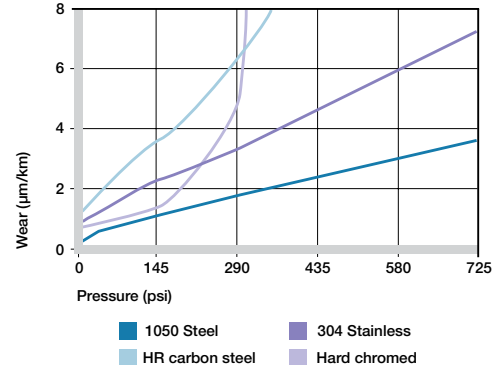
iglide®
R

Shaft Materials

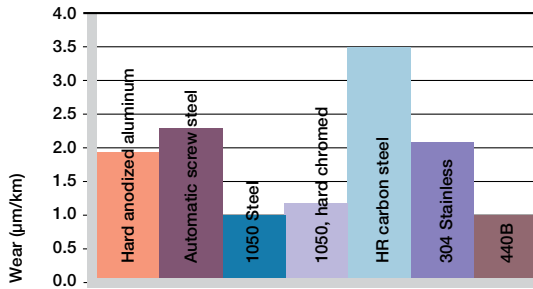
The graphs show results of testing different shaft materials with plain bearings made of iglide® R.

In the low load range, the 440B, hard anodized aluminum, 1050 case hardened steel, free cutting and hard chromed shafts are the most suitable shafting partners for iglide® R plain bearings. At higher loads, hardened shafts such as 440B and 1050 case hardened steel are recommended.

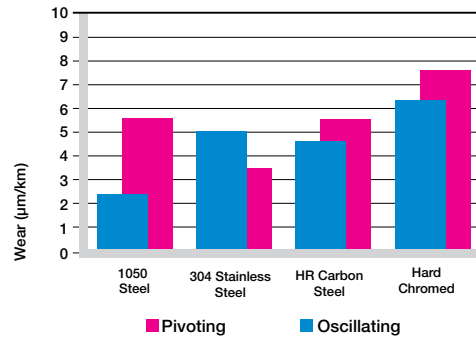
► Shaft Materials, Page 71



Wear of iglide® R with different shaft materials in rotational operation



Wear for iglide® R, rotating with different shaft materials, p = 108 psi, v = 98 fpm

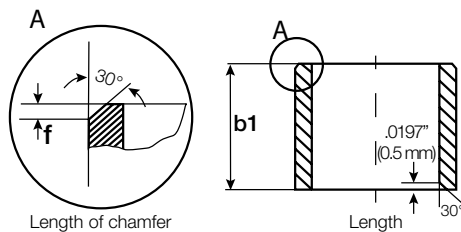


Wear for oscillating and rotating applications with different shaft materials at p = 290 psi

Installation Tolerances

iglide® R plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		
Length (inches)	Tolerance (h13) (inches)	Length of Chamfer (f) Based on d1
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		
Length (mm)	Tolerance (h13) (mm)	Length of Chamfer (f) Based on d1
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical & Moisture Resistance

iglide® R plain bearings are resistant to very weak acids, diluted lyes, fuels and all types of lubricants.

The moisture absorption of iglide® R plain bearings is approximately 0.2% in standard atmosphere. The saturation limit in water is 1%. This low moisture absorption allows for design in wet environments.

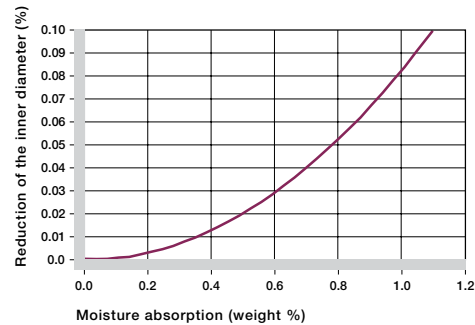
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+ to 0
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to –
Strong acids	–
Weak alkaline	+
Strong alkaline	+ to 0

+ resistant, 0 conditionally resistant, – not resistant

Chemical resistance of iglide® R

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® R plain bearings

Radiation Resistance

Plain bearings made from iglide® R are resistant to radiation up to an intensity of 3×10^2 Gy.

UV Resistance

iglide® R plain bearings are resistant to UV radiation, but the tribological properties are lessened with permanent exposure.

Vacuum

In a vacuum environment, iglide® R plain bearings release gases. It is only possible to use iglide® R in vacuum to a limited extent.

Electrical Properties

iglide® R plain bearings are electrically insulating

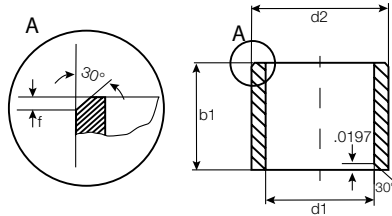
iglide® R

Specific volume resistance	> 10^{12} Ωcm
Surface resistance	> 10^{12} Ω

Electrical properties of iglide® R

iglide® R - Product Range

Sleeve bearing - Inch

 iglide®
R

Order key

Type	Dimensions
R S I	-01 03-02
iglide® material	Form S (sleeve)
Inch	Inch
	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

 For tolerance values
please refer to page 163

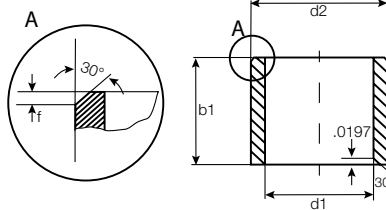
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
RSI-0204-04	1/8	1/4	1/4	.1262	.1280	.2510	.2515	.1241	.1250
RSI-0305-03	3/16	5/16	3/16	.1886	1.915	.3122	.3128	.1862	.1874
RSI-0305-04	3/16	5/16	1/4			.3122	.3128	.1862	.1874
RSI-0305-06	3/16	5/16	3/8			.3122	.3128	.1862	.1874
RSI-0305-08	3/16	5/16	1/2			.3122	.3128	.1862	.1874
RSI-0406-04	1/4	3/8	1/4	.2516	.2551	.3760	.3766	.2486	.2500
RSI-0406-05	1/4	3/8	5/16			.3760	.3766	.2486	.2500
RSI-0406-06	1/4	3/8	3/8			.3760	.3766	.2486	.2500
RSI-0406-10	1/4	3/8	5/8			.3760	.3766	.2486	.2500
RSI-0406-12	1/4	3/8	3/4			.3760	.3766	.2486	.2500
RSI-0506-08	5/16	3/8	1/2			.3125	.3148	.3747	.3753
RSI-0506-12	5/16	3/8	3/4	.3747	.3753			.3106	.3115
RSI-0507-04	5/16	7/16	1/4	.3142	.3177	.4386	.4393	.3112	.3126
RSI-0507-05	5/16	7/16	5/16			.4386	.4393	.3112	.3126
RSI-0507-06	5/16	7/16	3/8			.4386	.4393	.3112	.3126
RSI-0507-08	5/16	7/16	1/2			.4386	.4393	.3112	.3126
RSI-0507-10	5/16	7/16	5/8			.4386	.4393	.3112	.3126
RSI-0507-12	5/16	7/16	3/4			.4386	.4393	.3112	.3126
RSI-0608-04	3/8	1/2	1/4	.3764	.3799	.5010	.5017	.3734	.3748
RSI-0608-06	3/8	1/2	3/8			.5010	.5017	.3734	.3748
RSI-0608-08	3/8	1/2	1/2			.5010	.5017	.3734	.3748
RSI-0608-10	3/8	1/2	5/8			.5010	.5017	.3734	.3748
RSI-0608-12	3/8	1/2	3/4			.5010	.5017	.3734	.3748
RSI-0608-16	3/8	1/2	1			.5010	.5017	.3734	.3748
RSI-0708-08	7/8	17/32	1/2	.4379	.4406	.5309	.5316	.4366	.4375
RSI-0810-04	1/2	5/8	1/4	.5020	.5063	.6250	.6257	.4983	.5000
RSI-0810-06	1/2	5/8	3/8			.6250	.6257	.4983	.5000
RSI-0810-08	1/2	5/8	1/2			.6250	.6257	.4983	.5000
RSI-0810-10	1/2	5/8	5/8			.6250	.6257	.4983	.5000
RSI-0810-12	1/2	5/8	3/4			.6250	.6257	.4983	.5000
RSI-0810-16	1/2	5/8	1			.6250	.6257	.4983	.5000
RSI-0812-12	1/2	3/4	3/4	.5020	.5047	.7500	.7508	.4983	.5000
RSI-0812-16	1/2	3/4	1			.7500	.7508	.4983	.5000
RSI-1012-04	5/8	3/4	1/4	.6268	.6311	.7500	.7508	.6231	.6248
RSI-1012-06	5/8	3/4	3/8			.7500	.7508	.6231	.6248
RSI-1012-08	5/8	3/4	1/2			.7500	.7508	.6231	.6248
RSI-1012-10	5/8	3/4	5/8			.7500	.7508	.6231	.6248

iglide®
R

iglide® R - Product Range

Sleeve bearing - Inch


Order key

Type	Dimensions
R S I -01 03-02	
iglide® material	
Form S (sleeve)	
Inch	
Inner-Ø d1 (inch)	
Outer-Ø d2 (inch)	
Length b1 (inch)	

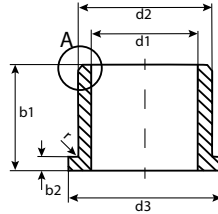
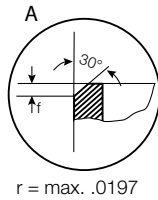
 For tolerance values
please refer to page 163

*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
RSI-1012-12	5/8	3/4	3/4	.6268	.6311	.7500	.7508	.6231	.6248
RSI-1012-16	5/8	3/4	1			.7500	.7508	.6231	.6248
RSI-1214-06	3/4	7/8	3/8	.7526	.7577	.8748	.8756	.7480	.7500
RSI-1214-16	3/4	7/8	1			.8748	.8756	.7480	.7500
RSI-1216-12	3/4	1	3/4	.7526	.7577	1.0000	1.0008	.7480	.7500
RSI-1216-16	3/4	1	1			1.0000	1.0008	.7480	.7500
RSI-1216-20	3/4	1	1 1/4			1.0000	1.0008	.7480	.7500
RSI-1216-24	3/4	1	1 1/2			1.0000	1.0008	.7480	.7500
RSI-1416-12	7/8	1	3/4	.8766	.8799	1.0000	1.0008	.8730	.8750
RSI-1416-16	7/8	1	1			1.0000	1.0008	.8730	.8750
RSI-1416-24	7/8	1	1 1/2			1.0000	1.0008	.8730	.8750
RSI-1418-10	7/8	1 1/8	5/8	.8774	.8825	1.1250	1.1258	.8728	.8748
RSI-1418-12	7/8	1 1/8	3/4			1.1250	1.1258	.8728	.8748
RSI-1418-16	7/8	1 1/8	1			1.1250	1.1258	.8728	.8748
RSI-1418-24	7/8	1 1/8	1 1/2			1.1250	1.1258	.8728	.8748
RSI-1618-12	1	1 1/8	3/4	1.0026	1.0077	1.1250	1.1258	.9980	1.0000
RSI-1618-22	1	1 1/8	1 3/8			1.1250	1.1258	.9980	1.0000
RSI-1620-10	1	1 1/4	5/8	1.0026	1.0077	1.2500	1.2510	.9980	1.0000
RSI-1620-12	1	1 1/4	3/4			1.2500	1.2510	.9980	1.0000
RSI-1620-16	1	1 1/4	1			1.2500	1.2510	.9980	1.0000
RSI-1620-20	1	1 1/4	1 1/4			1.2500	1.2510	.9980	1.0000
RSI-1620-24	1	1 1/4	1 1/2			1.2500	1.2510	.9980	1.0000
RSI-2024-16	1 1/4	1 1/2	1	1.2531	1.2594	1.5000	1.5010	1.2476	1.2500
RSI-2024-24	1 1/4	1 1/2	1 1/2			1.5000	1.5010	1.2476	1.2500
RSI-3236-16	2	2 1/4	1	2.0039	2.0114	2.2500	2.2512	1.9971	2.0000
RSI-3236-32	2	2 1/4	2			2.2500	2.2512	1.9971	2.0000

iglide® R - Product Range

Flange bearing - Inch

 iglide®
R

Order key

Type	Dimensions
R F I -02 03-02	
iglide® material	Inner-Ø d1 (inch)
Form F (flange)	Outer-Ø d2 (inch)
Inch	Length b1 (inch)

 For tolerance values
please refer to page 163

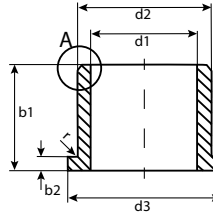
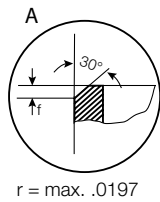
*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
RFI-0305-03	3/16	5/16	3/16	.370	.047	.1886	.1915	.3125	.3131	.1862	.1874
RFI-0305-04	3/16	5/16	1/4	.370	.047			.3125	.3131	.1862	.1874
RFI-0305-06	3/16	5/16	3/8	.370	.047			.3125	.3131	.1862	.1874
RFI-0305-08	3/16	5/16	1/2	.370	.047			.3125	.3131	.1862	.1874
RFI-0406-04	1/4	3/8	1/4	.560	.047	.2516	.2551	.3750	.3756	.2486	.2500
RFI-0406-05	1/4	3/8	5/16	.560	.047			.3750	.3756	.2486	.2500
RFI-0406-06	1/4	3/8	3/8	.560	.047			.3750	.3756	.2486	.2500
RFI-0406-08	1/4	3/8	1/2	.560	.047			.3750	.3756	.2486	.2500
RFI-0406-10	1/4	3/8	5/8	.560	.047			.3750	.3756	.2486	.2500
RFI-0406-12	1/4	3/8	3/4	.560	.047			.3750	.3756	.2486	.2500
RFI-0507-04	5/16	7/16	1/4	.560	.062	.3142	.3177	.4374	.4381	.3112	.3126
RFI-0507-05	5/16	7/16	5/16	.560	.062			.4374	.4381	.3112	.3126
RFI-0507-06	5/16	7/16	3/8	.560	.062			.4374	.4381	.3112	.3126
RFI-0507-08	5/16	7/16	1/2	.560	.062			.4374	.4381	.3112	.3126
RFI-0507-10	5/16	7/16	5/8	.560	.062			.4374	.4381	.3112	.3126
RFI-0507-12	5/16	7/16	3/4	.560	.062			.4374	.4381	.3112	.3126
RFI-0607-04	3/8	15/32	1/4	.687	.046	.3766	.3801	.4687	.4694	.3736	.3750
RFI-0608-04	3/8	1/2	1/4	.625	.062	.3766	.3801	.5010	.5017	.3736	.3750
RFI-0608-06	3/8	1/2	3/8	.625	.062			.5010	.5017	.3736	.3750
RFI-0608-08	3/8	1/2	1/2	.625	.062			.5010	.5017	.3736	.3750
RFI-0608-10	3/8	1/2	5/8	.625	.062			.5010	.5017	.3736	.3750
RFI-0608-12	3/8	1/2	3/4	.625	.062			.5010	.5017	.3736	.3750
RFI-0608-16	3/8	1/2	1	.625	.062			.5010	.5017	.3736	.3750
RFI-0708-04	7/16	17/32	1/4	.750	.046	.4386	.4429	.5309	.5316	.4349	.4366
RFI-0708-08	7/16	17/32	1/2	.750	.046			.5309	.5316	.4349	.4366
RFI-0809-03	1/2	19/32	3/16	.875	.046	.5020	.5063	.5937	.5944	.4980	.4990
RFI-0809-04	1/2	19/32	1/4	.875	.046			.5937	.5944	.4980	.4990
RFI-0809-08	1/2	19/32	1/2	.875	.046			.5937	.5944	.4980	.4990
RFI-0810-04	1/2	5/8	1/4	.875	.062	.5020	.5063	.6250	.6257	.4983	.5000
RFI-0810-06	1/2	5/8	3/8	.875	.062			.6250	.6257	.4983	.5000
RFI-0810-08	1/2	5/8	1/2	.875	.062			.6250	.6257	.4983	.5000
RFI-0810-10	1/2	5/8	5/8	.875	.062			.6250	.6257	.4983	.5000
RFI-0810-12	1/2	5/8	3/4	.875	.062			.6250	.6257	.4983	.5000
RFI-0810-16	1/2	5/8	1	.875	.062			.6250	.6257	.4983	.5000
RFI-0812-0210	1/2	3/4	7/32	1.000	.125	.5020	.5047	.7500	.7508	.4983	.5000
RFI-0812-08	1/2	3/4	1/2	1.000	.125			.7500	.7508	.4983	.5000
RFI-0812-12	1/2	3/4	3/4	1.000	.125			.7500	.7508	.4983	.5000

iglide®
R

iglide® R - Product Range

Flange bearing - Inch



For tolerance values
please refer to page 163



Order key

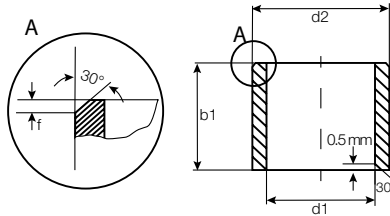
Type	Dimensions
R F I	-02 03-02
iglide® material	Form F (flange)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
RFI-0812-16	1/2	3/4	1	1.000	.125	.5020	.5047	.7500	.7508	.4983	.5000
RFI-1012-06	5/8	3/4	3/8	1.000	.062	.6270	.6313	.7500	.7508	.6233	.6250
RFI-1012-08	5/8	3/4	1/2	1.000	.062			.7500	.7508	.6233	.6250
RFI-1012-10	5/8	3/4	5/8	1.000	.062			.7500	.7508	.6233	.6250
RFI-1012-12	5/8	3/4	3/4	1.000	.062			.7500	.7508	.6233	.6250
RFI-1012-16	5/8	3/4	1	1.000	.062			.7500	.7508	.6233	.6250
RFI-1214-07	3/4	7/8	7/16	1.125	.062	.7516	.7549	.8748	.8756	.7480	.7500
RFI-1214-08	3/4	7/8	7/16	1.125	.062			.8748	.8756	.7480	.7500
RFI-1214-12	3/4	7/8	7/16	1.125	.062			.8748	.8756	.7480	.7500
RFI-1214-16	3/4	7/8	7/16	1.125	.062			.8748	.8756	.7480	.7500
RFI-1216-08	3/4	1	1/2	1.250	.156	.7526	.7577	1.0000	1.0008	.7480	.7500
RFI-1216-12	3/4	1	3/4	1.250	.156			1.0000	1.0008	.7480	.7500
RFI-1216-16	3/4	1	1	1.250	.156			1.0000	1.0008	.7480	.7500
RFI-1216-20	3/4	1	1 1/4	1.250	.156			1.0000	1.0008	.7480	.7500
RFI-1216-24	3/4	1	1 1/2	1.250	.156			1.0000	1.0008	.7480	.7500
RFI-1416-07	7/8	1	7/16	1.250	.062	.8756	.8789	.9997	1.0005	.8720	.8740
RFI-1416-12	7/8	1	7/16	1.250	.062			.9997	1.0005	.8720	.8740
RFI-1416-20	7/8	1	7/16	1.250	.062			.9997	1.0005	.8720	.8740
RFI-1418-10	7/8	1 1/8	5/8	1.375	.156	.8774	.8825	1.1250	1.1258	.8728	.8748
RFI-1418-12	7/8	1 1/8	3/4	1.375	.156			1.1250	1.1258	.8728	.8748
RFI-1418-16	7/8	1 1/8	1	1.375	.156			1.1250	1.1258	.8728	.8748
RFI-1418-24	7/8	1 1/8	1 1/2	1.375	.156			1.1250	1.1258	.8728	.8748
RFI-1618-08	1	1 1/8	1/2	1.375	.062	1.0026	1.0077	1.1250	1.1258	.9980	1.0000
RFI-1618-12	1	1 1/8	3/4	1.375	.062			1.1250	1.1258	.9980	1.0000
RFI-1618-20	1	1 1/8	1 1/4	1.375	.062			1.1250	1.1258	.9980	1.0000
RFI-1620-10	1	1 1/4	5/8	1.500	.188	1.0026	1.0077	1.2500	1.2510	.9980	1.0000
RFI-1620-12	1	1 1/4	3/4	1.500	.188			1.2500	1.2510	.9980	1.0000
RFI-1620-16	1	1 1/4	1	1.500	.188			1.2500	1.2510	.9980	1.0000
RFI-1620-20	1	1 1/4	1 1/4	1.500	.188			1.2500	1.2510	.9980	1.0000
RFI-1620-24	1	1 1/4	1 1/2	1.500	.188			1.2500	1.2510	.9980	1.0000
RFI-2022-09	1 1/4	1 13/32	9/16	1.687	.078	1.2508	1.2547	1.4098	1.4108	1.2464	1.2488
RFI-2024-16	1 1/4	1 1/2	1	1.750	.200	1.2531	1.2594	1.5039	1.5049	1.2476	1.2500
RFI-2428-12	1 1/2	1 3/4	3/4	2.000	.125	1.5031	1.5094	1.7575	1.7585	1.4976	1.5000
RFI-3236-12	2	2 1/4	3/4	2.500	.125	2.0039	2.0114	2.2579	2.2591	1.9971	2.0000
RFI-3236-24	2	2 1/4	1 1/2	2.500	.125			2.2579	2.2591	1.9971	2.0000
RFI-3236-32	2	2 1/4	2	2.500	.125			2.2579	2.2591	1.9971	2.0000

iglide® R - Product Range

Sleeve bearing - Metric

 iglide®
R

Order key

Type		Dimensions		
R	S	M	-01	03-02
iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)
				Length b1 (mm)

 For tolerance values
please refer to page 163

Dimensions according to ISO 3547-1 and special dimensions

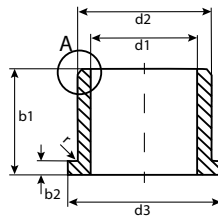
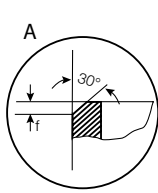
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				h13	Min.	Max.	Min.	Max.	Min.
RSM-0203-07	2.0	3.6	7.0	2.014	2.054	3.600	3.610	1.975	2.000
RSM-0405-04	4.0	5.5	4.0	4.068	4.020	5.500	5.512	3.970	4.000
RSM-0506-05	5.0	6.0	5.0	5.020	5.068	6.000	6.012	4.970	5.000
RSM-0506-07	5.0	6.0	7.0			6.000	6.012	4.970	5.000
RSM-0507-05	5.0	7.0	5.0	5.020	5.068	7.000	7.012	4.970	5.000
RSM-0608-06	6.0	8.0	6.0	6.020	6.068	8.000	8.015	5.970	6.000
RSM-0610-08	6.0	10.0	8.0	6.020	6.068	10.000	10.015	5.970	6.000
RSM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
RSM-1012-05	10.0	12.0	5.0	10.025	10.083	12.000	12.018	9.964	10.000
RSM-1012-10	10.0	12.0	10.0			12.000	12.018	9.964	10.000
RSM-1012-15	10.0	12.0	15.0			12.000	12.018	9.964	10.000
RSM-1214-12	12.0	14.0	12.0	12.032	12.102	14.000	14.018	11.957	12.000
RSM-1416-10	14.0	16.0	10.0	14.032	14.102	16.000	16.018	13.957	14.000
RSM-1416-15	14.0	16.0	15.0			16.000	16.018	13.957	14.000
RSM-1517-15	15.0	17.0	15.0	15.032	15.102	17.000	17.0178	15.957	16.000
RSM-1618-15	16.0	18.0	15.0	16.032	16.102	18.000	18.018	15.957	16.000
RSM-1820-25	18.0	20.0	25.0	18.032	18.102	20.000	20.021	17.957	18.000
RSM-2023-15	20.0	23.0	15.0	20.040	20.124	23.000	23.021	19.948	20.000
RSM-2023-20	20.0	23.0	20.0			23.000	23.021	19.948	20.000
RSM-2528-25	25.0	28.0	25.0	25.040	25.124	28.000	28.021	24.948	25.000
RSM-2832-12	28.0	32.0	12.0	28.065	28.195	32.000	32.025	27.948	28.000
RSM-3034-25	30.0	34.0	25.0	30.040	30.124	34.000	34.025	29.948	30.000
RSM-3034-30	30.0	34.0	30.0			34.000	34.025	29.948	30.000
RSM-3539-30	35.0	39.0	30.0	35.050	35.150	39.000	39.025	34.938	35.000

iglide®
R

iglide® R - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
R F M	-01 03-02
iglide® material	Inner-Ø d1 (mm)
Form F (flange)	Outer-Ø d2 (mm)
Metric	Length b1 (mm)

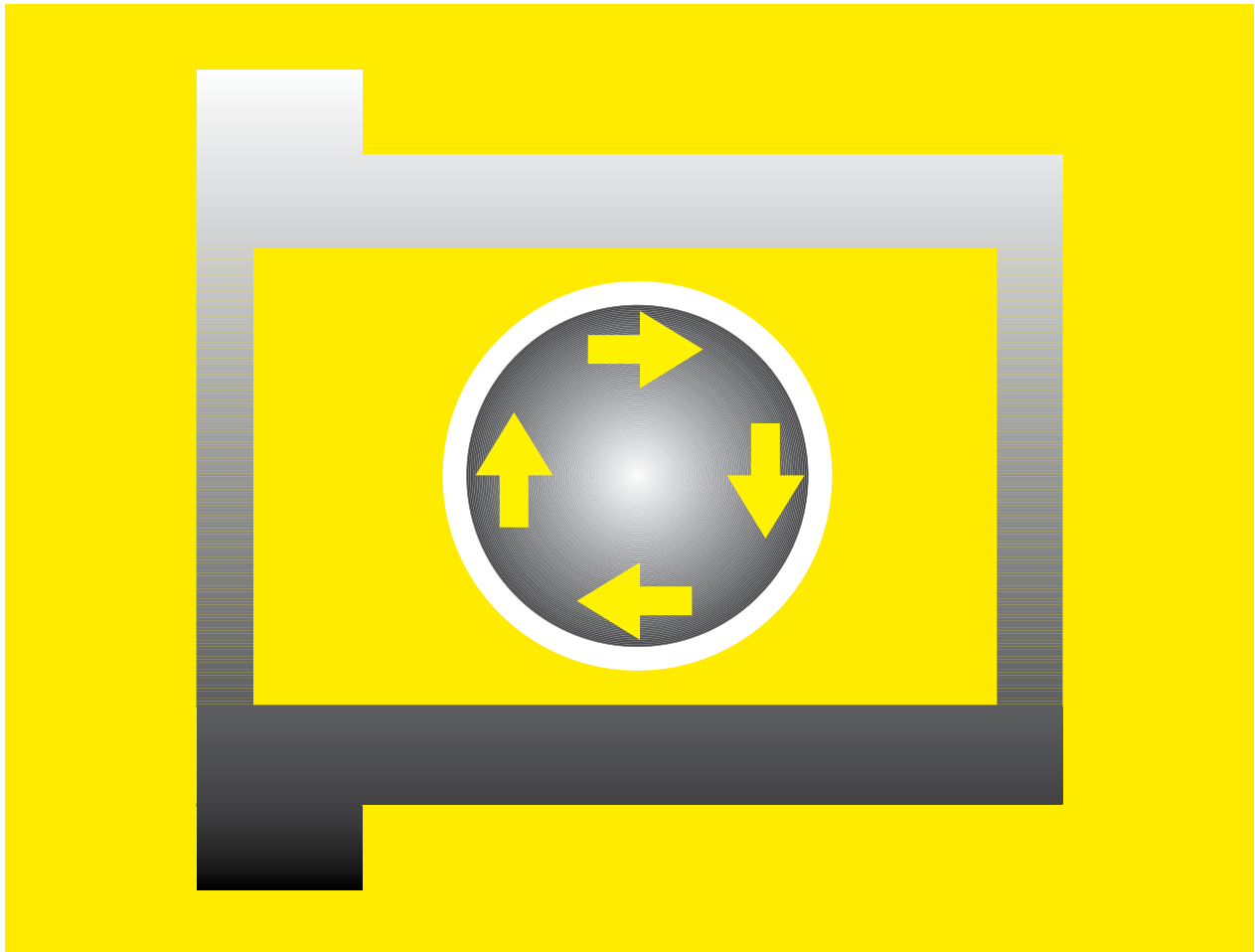
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 For tolerance values
please refer to page 163

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	b1	d3	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
RFM-0405-03	4.0	5.0	3.0	9.0	0.5	4.020	4.068	5.000	5.012	3.975	4.000
RFM-0507-05	5.0	7.0	5.0	11.0	1.0	5.020	5.068	7.000	7.015	4.970	5.000
RFM-0608-06	6.0	8.0	6.0	12.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
RFM-0810-05	8.0	10.0	5.0	15.0	1.0	8.025	8.083	10.000	10.015	7.964	8.000
RFM-0810-10	8.0	10.0	10.0	15.0	1.0			10.000	10.015	7.964	8.000
RFM-1012-09	10.0	12.0	9.0	18.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
RFM-1012-10	10.0	12.0	10.0	18.0	1.0			12.000	12.018	9.964	10.000
RFM-1012-18	10.0	12.0	18.0	18.0	1.0			12.000	12.018	9.964	10.000
RFM-1214-10	12.0	14.0	10.0	20.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
RFM-1214-12	12.0	14.0	12.0	20.0	1.0			14.000	14.018	11.957	12.000
RFM-1416-17	14.0	16.0	17.0	22.0	1.0	14.032	14.102	16.000	16.018	13.957	14.000
RFM-1517-17	15.0	17.0	17.0	23.0	1.0	15.032	15.102	17.000	17.018	14.957	15.000
RFM-1618-17	16.0	18.0	17.0	24.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
RFM-1622-12	16.0	22.0	12.0	24.0	3.0	16.032	16.102	22.000	22.021	15.957	16.000
RFM-1820-17	18.0	20.0	17.0	26.0	1.0	18.032	18.102	20.000	20.021	17.957	18.000
RFM-2023-21	20.0	23.0	21.0	30.0	1.5	20.040	20.124	23.000	23.021	19.948	20.000
RFM-222529-045	22.0	25.0	4.5	29.0	1.5	22.040	22.124	25.000	25.021	21.948	22.000
RFM-2528-21	25.0	28.0	21.5	35.0	1.5	25.040	25.124	28.000	28.021	24.948	25.000



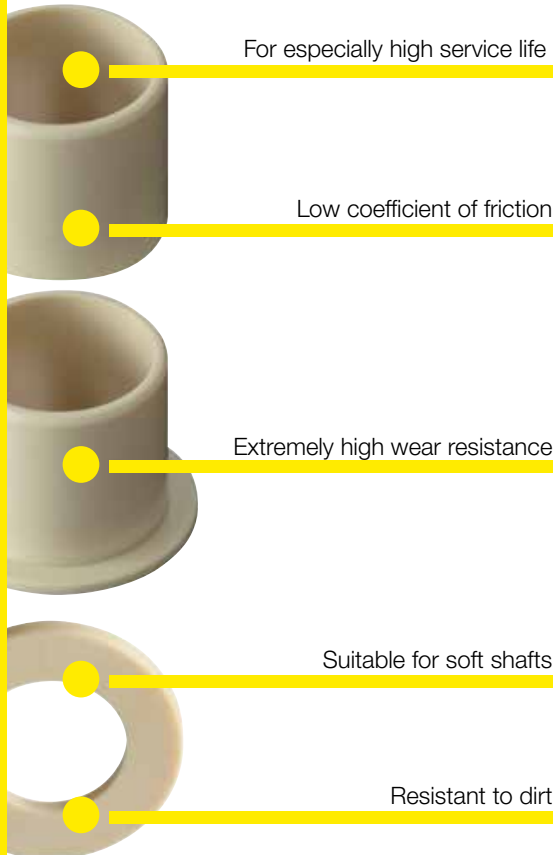
iglide® L280

- For especially long service life
- Low coefficient of friction
- Extremely high wear resistance
- Suitable for soft shafts
- Resistant to dirt

iglide®
L280

iglide® L280 - The Marathon Runner

Low wear on all shafts



The iglide® L280 material provides excellent wear resistance, even in harsh environments or when used with rough shafts. Of all the iglide® materials, iglide® L280 is the most resistant to these conditions.



- When especially high service life is necessary
- When low coefficients of dynamic friction and high wear resistance are needed
- For use on 303 stainless steel shafts
- For harsh environments and very rough shaft



- For high loads starting at 7,250 psi
 - iglide® Q
- When temperatures are continuously above 266°F
 - iglide® T500
 - iglide® J350
 - iglide® Z
- When a cost-effective bearing is desired
 - iglide® G300



Available from stock

Detailed information about delivery time online.
This product may also appear online under the German material name iglidur® W300.



max. +194°F
min. -40°F



Price breaks online

No minimum order.



Ø 1/8 to 2-1/4 inches
more dimensions on request



Typical application areas

- Automation
- Printing Industry
- Woodworking
- Mechatronics
- Test Engineering and Quality Assurance



Ø 2 to 120 mm
more dimensions on request



*W300 is the European material equivalent for iglide® L280, X is the European equivalent material for iglide® T500

172 Lifetime calculation, configuration and more ➤ www.igus.com/L280

iglide® L280 - Technical Data

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L280**

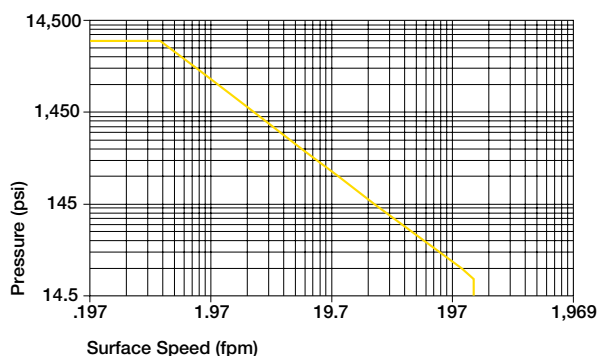
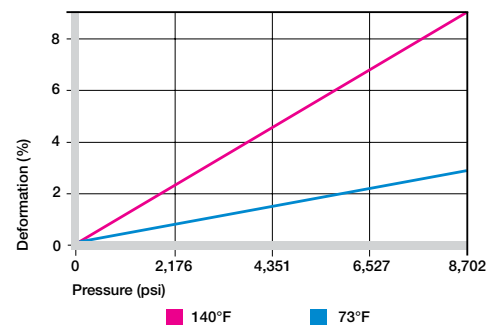
Material Properties Table

General Properties	Unit	iglide® L280	Testing Method
Density	g/cm ³	1.24	
Color		yellow	
Max. moisture absorption at 73°F / 50% r.h.	% weight	1.3	DIN 53495
Max. moisture absorption	% weight	6.5	
Coefficient of friction, dynamic against steel	μ	0.08 - 0.23	
pv value, max. (dry)	psi x fpm	6,600	
Mechanical Properties			
Modulus of elasticity	psi	507,600	DIN 53457
Tensile strength at 68°F	psi	18,130	DIN 53452
Compressive strength	psi	8,847	
Permissible static surface pressure (68°F)	psi	8,702	
Shore D-hardness		77	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	194	
Max. application temperature, short-term	°F	356	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	9	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹³	DIN IEC 93
Surface resistance	Ω	> 10 ¹²	DIN 53482

Compressive Strength

iglide® L280 exhibits a very high compression resistance in spite of its high elasticity. The graph shows the elastic deformation of iglide® L280 under radial loading. At the maximum permissible load of 8700 psi, the deformation at room temperature is less than 3%. Below the maximum permissible pressure load of 8700 psi, the deformation at room temperature is virtually zero.

► Compressive strength, Page 63



Permissible pv - values for iglide® L280 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

Even at higher surface speeds, the coefficients of friction for iglide® L280 do not increase. Therefore, compared to other materials, higher surface speeds can be obtained, for example, up to 195 fpm rotating and up to 787 fpm linear. The bearing wear remains low when used for long periods at high speeds, due to exceptional wear resistance. Especially high speeds can be obtained with iglide® L280 bearings on hardened shafts with recommended surface finish.

- Surface speed, Page 64
- pv Value, Page 65

	Continuous fpm	Short Term fpm
Rotating	196	492
Oscillating	137	354
Linear	787	1181

Maximum surface speeds

iglide®
L280

iglide® L280 - Technical Data

Temperatures

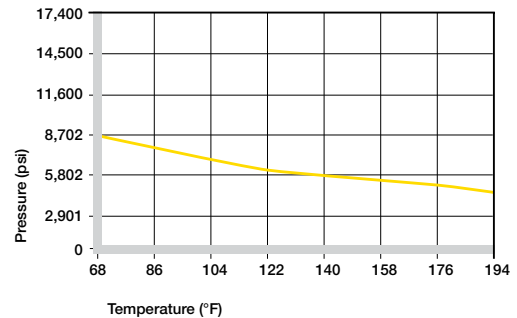
iglide® L280 plain bearings show minimal reaction to changing external conditions. This also applies to temperatures. iglide® L280 bearings maintain their exceptional wear resistance even up to the highest permissible application temperatures and at the same time resist becoming brittle at low temperatures. On the other hand, the mechanical properties at high temperatures limit the applications of iglide® L280. Even at temperatures of 140°F, relaxation of the bearing can occur. In this process, the pressfit forces of the bearing decrease to a large extent due to temperature. During re-cooling and the resulting contraction caused by it, migration of the bearing can occur.

In order to avoid this situation, iglide® L280 plain bearings always need to be axially secured in applications at 140°F and above.

► Application temperatures, Page 67

iglide® L280	Application Temperature
Minimum	- 40°F
Max. long-term	+194°F
Mechanical (total)	+266°F
Max. short-term	+356°F
Additional axial securing	+140°F

Temperature limits for iglide® L280



Recommended maximum permissible static surface pressure of iglide® L280 as a result of temperature

Friction and Wear

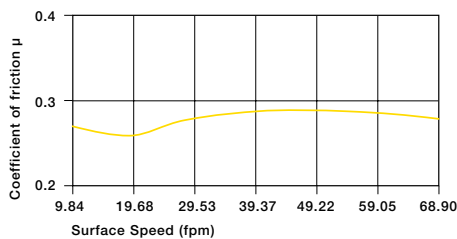
The coefficients of friction for iglide® L280 decrease with increasing load. In the dry run against steel (Cold Rolled Steel), friction is reduced when load ranges from $p = 72.5$ to 507.5 psi by approximately 25%.

In contrast to other iglide® materials, the coefficient of friction of iglide® L280 remains consistently low at higher rotational speeds.

Friction and wear are dependent, to a large degree on the shafting partner. Shafts that are too smooth increase both the coefficient of friction and the wear of the bearing. Smooth shafts have the danger of stick-slip. Squeaking as an effect of stick-slip is mostly the result of shafts that are too smooth. For iglide L280 a ground surface with an average roughness range of 16-20 rms is recommended for the shaft. Tests with iglide® L280 have shown the wear at this roughness is very low, while the friction assumes its lowest value.

► Coefficients of friction and surfaces, Page 68

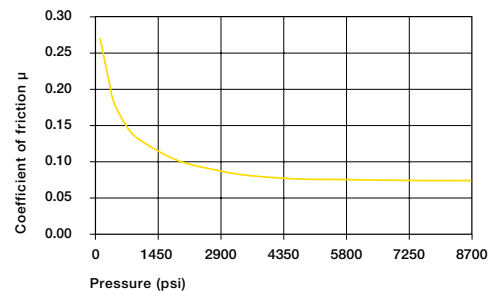
► Wear resistance, Page 69



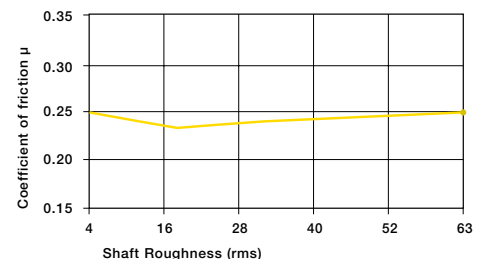
Coefficient of friction of iglide® L280 as a result of the surface speed, p = 108 psi, shaft made of Cold Rolled Steel

iglide® L280	Coefficient of Friction
Dry	0.08 - 0.23
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction for iglide® L280 against steel (Shaft Finish = 40 rms, 50 HRC)



Coefficient of friction of iglide® L280 as a result of the load, v = 1.97 fpm



Coefficients of friction for iglide® L280 as a result of the shaft surface (shaft Cold Rolled Steel)

iglide® L280 - Technical Data

iglide®
L280

Shaft Materials

The graphs show results of testing different shaft materials with plain bearings made of iglide® L280.

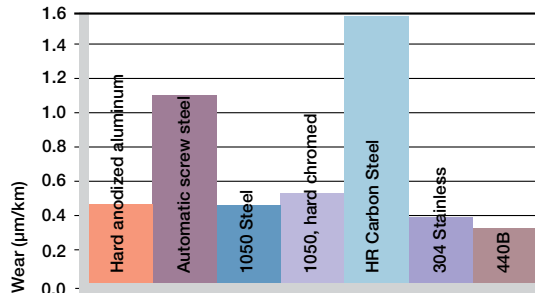
For rotational applications with low loads, the wear varies according to the shaft material. iglide® L280 provides very good to acceptable coefficients of friction for all shafts that were tested. iglide® L280 likes hard shafts. For small radial loads with hard-chromed shafts and/or shafts made of corrosion-resistant steel, iglide® L280 is the best suited iglide® material.

The soft shaft materials HR carbon steel and free-cutting steel are not as well suited for plain bearings made of iglide® L280.

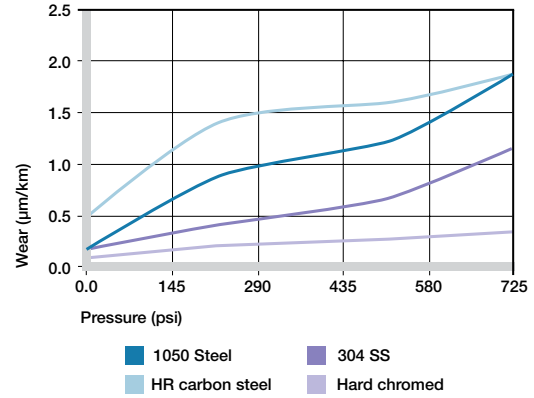
Hardened shafts are preferred for applications for higher loads. The graph clearly shows the difference in materials for increasing loads. A similar picture emerges for oscillating applications. First, for low loads, the wear for the oscillating movement lies below that of a rotation at the same load. For higher loads, the situation changes.

If the shaft material you plan to use is not contained in this listing, please contact us.

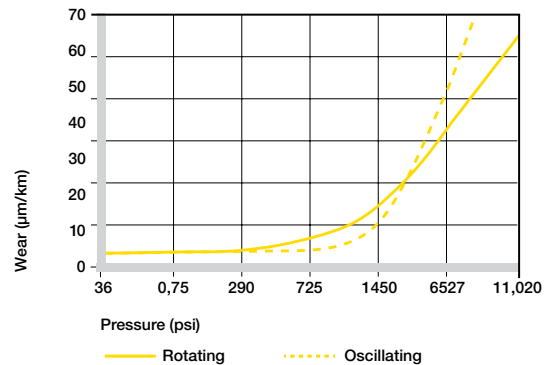
► Shaft Materials, Page 71



Wear of iglide® L280 with different shaft materials
(p = 108 psi)



Wear with different shaft materials in rotational operation, as a result of the load

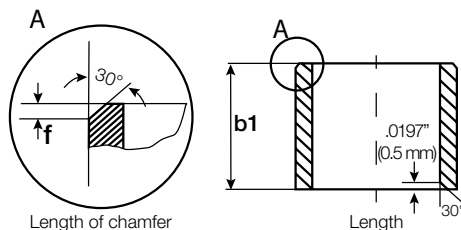


Wear for oscillating and rotating applications with shaft material Cold Rolled Steel, as a result of the load

Installation Tolerances

iglide® L280 plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings

Length Tolerance (b1)		
Length (inches)	Tolerance (h13) (inches)	Length of Chamfer (f) Based on d1
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings

Length Tolerance (b1)		
Length (mm)	Tolerance (h13) (mm)	Length of Chamfer (f) Based on d1
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

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L280

iglide® L280 - Technical Data

Chemical Resistance

iglide® L280 plain bearings have a good resistance to chemicals. They are resistant to most lubricants. iglide® L280 is not attacked by most weak organic and inorganic acids.

The moisture absorption of iglide® L280 plain bearings is approximately 1.3% weight in the standard atmosphere. The maximum water absorption is 6.5%. This must be taken into account along with other environmental influences.

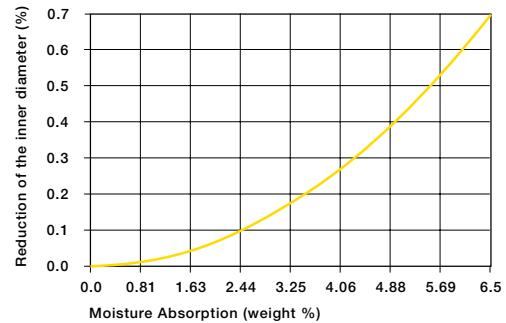
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+ to 0
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to -
Strong acids	-
Weak alkaline	+
Strong alkaline	0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® L280

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® L280 plain bearings

Radiation Resistance

Plain bearings made from iglide® L280 are resistant to radiation up to an intensity of 3×10^2 Gy.

UV-Resistance

iglide® L280 plain bearings are permanently resistant to UV radiation. A slight change in color (dark coloration) due to UV radiation and other weathering effects will not significantly influence the mechanical, electrical or thermal properties.

Vacuum

In a vacuum, iglide® L280 plain bearings will outgas any moisture they may have absorbed. The use of iglide® L280 in a vacuum environment is only possible to a limited extent.

Electrical Properties

iglide® L280 plain bearings are electrically insulating.

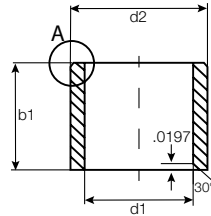
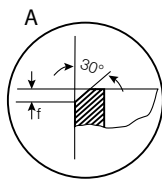
iglide® L280

Specific volume resistance	> 10^{13} Ωcm
Surface resistance	> 10^{12} Ω

Electrical properties of iglide® L280

iglide® L280 - Product Range

Sleeve bearing - Inch

**iglide®
L280**

Order key

Type	Dimensions
L S I	-01 03-02
iglide® material	Form S (sleeve)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

 For tolerance values
 please refer to page 175

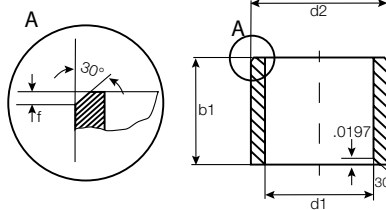
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
LSI-0203-03	1/8	3/16	3/16	.1251	.1269	.1873	.1878	.1236	.1243
LSI-0203-04	1/8	3/16	1/4			.1873	.1878	.1236	.1243
LSI-0203-06	1/8	3/16	3/8			.1873	.1878	.1236	.1243
LSI-0304-04	3/16	1/4	1/4	.1873	.1892	.2497	.2503	.1858	.1865
LSI-0304-06	3/16	1/4	3/8			.2497	.2503	.1858	.1865
LSI-0304-08	3/16	1/4	1/2			.2497	.2503	.1858	.1865
LSI-0405-03	1/4	5/16	3/16	.2498	.2521	.3122	.3128	.2481	.2490
LSI-0405-04	1/4	5/16	1/4			.3122	.3128	.2481	.2490
LSI-0405-05	1/4	5/16	5/16			.3122	.3128	.2481	.2490
LSI-0405-06	1/4	5/16	3/8			.3122	.3128	.2481	.2490
LSI-0405-08	1/4	5/16	1/2			.3122	.3128	.2481	.2490
LSI-0405-11	1/4	5/16	11/16			.3122	.3128	.2481	.2490
LSI-0506-04	5/16	3/8	1/4			.3125	.3148	.3747	.3753
LSI-0506-06	5/16	3/8	3/8	.3747	.3753			.3106	.3115
LSI-0506-08	5/16	3/8	1/2	.3747	.3753			.3106	.3115
LSI-0506-12	5/16	3/8	3/4	.3747	.3753			.3106	.3115
LSI-0607-04	3/8	15/32	1/4	.3750	.3773	.4684	.4691	.3731	.3740
LSI-0607-06	3/8	15/32	3/8			.4684	.4691	.3731	.3740
LSI-0607-07	3/8	15/32	7/16			.4684	.4691	.3731	.3740
LSI-0607-08	3/8	15/32	1/2			.4684	.4691	.3731	.3740
LSI-0607-12	3/8	15/32	3/4			.4684	.4691	.3731	.3740
LSI-0608-12	3/8	1/2	3/4	.3760	.3783	.5000	.5007	.3741	.3750
LSI-0708-04	7/16	17/32	1/2	.4379	.4406	.5309	.5316	.4355	.4365
LSI-0708-08	7/16	17/32	1/2			.5309	.5316	.4355	.4365
LSI-0809-03	1/2	19/32	3/16	.5003	.5030	.5934	.5941	.4980	.4990
LSI-0809-04	1/2	19/32	1/4			.5934	.5941	.4980	.4990
LSI-0809-06	1/2	19/32	3/8			.5934	.5941	.4980	.4990
LSI-0809-08	1/2	19/32	1/2			.5934	.5941	.4980	.4990
LSI-0809-10	1/2	19/32	5/8			.5934	.5941	.4980	.4990
LSI-0809-12	1/2	19/32	3/4			.5934	.5941	.4980	.4990
LSI-0809-16	1/2	19/32	1			.5934	.5941	.4980	.4990
LSI-0810-08	1/2	5/8	1/2	.5013	.5040	.6250	.6260	.4990	.5000
LSI-0810-10	1/2	5/8	5/8			.6250	.6260	.4990	.5000
LSI-0810-12	1/2	5/8	3/4			.6250	.6260	.4990	.5000
LSI-0810-16	1/2	5/8	1			.6250	.6260	.4990	.5000
LSI-0910-08	9/16	21/32	1/2			.5627	.5655	.6563	.6570
LSI-0910-12	9/16	21/32	3/4	.6563	.6570			.5605	.5615
LSI-1011-04	5/8	23/32	1/4	.6253	.6280	.7184	.7192	.6230	.6240

iglide®
L280

iglide® L280 - Product Range

Sleeve bearing - Inch


Order key

Type	Dimensions
L S I -01 03-02	
iglide® material	
Form S (sleeve)	
Inch	
Inner-Ø d1 (inch)	
Outer-Ø d2 (inch)	
Length b1 (inch)	

 For tolerance values
please refer to page 175

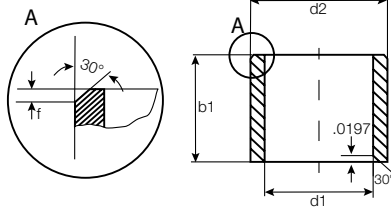
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
LSI-1011-06	5/8	23/32	3/8	.6253	.6280	.7184	.7192	.6230	.6240
LSI-1011-08	5/8	23/32	1/2			.7184	.7192	.6230	.6240
LSI-1011-10	5/8	23/32	5/8			.7184	.7192	.6230	.6240
LSI-1011-12	5/8	23/32	3/4			.7184	.7192	.6230	.6240
LSI-1011-16	5/8	23/32	1			.7184	.7192	.6230	.6240
LSI-1112-12	11/16	25/32	3/4	.6879	.6906	.7809	.7817	.6855	.6865
LSI-1214-08	3/4	7/8	1/2	.7507	.7541	.8747	.8755	.7479	.7491
LSI-1214-12	3/4	7/8	3/4			.8747	.8755	.7479	.7491
LSI-1214-16	3/4	7/8	1			.8747	.8755	.7479	.7491
LSI-1214-24	3/4	7/8	1 1/2			.8747	.8755	.7479	.7491
LSI-1315-15	13/16	15/16	15/16			.8141	.8174	.9375	.9383
LSI-1416-04	7/8	1	1/4	.8757	.8791	.9997	1.0005	.8729	.8741
LSI-1416-06	7/8	1	3/8			.9997	1.0005	.8729	.8741
LSI-1416-08	7/8	1	1/2			.9997	1.0005	.8729	.8741
LSI-1416-10	7/8	1	5/8			.9997	1.0005	.8729	.8741
LSI-1416-12	7/8	1	3/4			.9997	1.0005	.8729	.8741
LSI-1416-16	7/8	1	1			.9997	1.0005	.8729	.8741
LSI-1416-24	7/8	1	1 1/2			.9997	1.0005	.8729	.8741
LSI-1618-06	1	1 1/8	3/8			1.0007	1.0041	1.1247	1.1255
LSI-1618-08	1	1 1/8	1/2	1.1247	1.1255			.9979	.9991
LSI-1618-12	1	1 1/8	3/4	1.1247	1.1255			.9979	.9991
LSI-1618-16	1	1 1/8	1	1.1247	1.1255			.9979	.9991
LSI-1618-20	1	1 1/8	1 1/4	1.1247	1.1255			.9979	.9991
LSI-1618-22	1	1 1/8	1 3/8	1.1247	1.1255			.9979	.9991
LSI-1618-24	1	1 1/8	1 1/2	1.1247	1.1255			.9979	.9991
LSI-1820-12	1 1/8	1 9/32	3/4	1.1254	1.1288	1.2808	1.2818	1.1226	1.1238
LSI-2022-14	1 1/4	1 13/32	7/8	1.2508	1.2548	1.4058	1.4068	1.2472	1.2488
LSI-2022-16	1 1/4	1 13/32	1			1.4058	1.4068	1.2472	1.2488
LSI-2022-20	1 1/4	1 13/32	1 1/4			1.4058	1.4068	1.2472	1.2488
LSI-2022-24	1 1/4	1 13/32	1 1/2			1.4058	1.4068	1.2472	1.2488
LSI-2224-16	1 3/8	1 17/32	1	1.3758	1.3798	1.5308	1.5318	1.3722	1.3738
LSI-2224-24	1 3/8	1 17/32	1 1/2			1.5308	1.5318	1.3722	1.3738
LSI-2224-36	1 3/8	1 17/32	2 1/4			1.5308	1.5318	1.3722	1.3738
LSI-2426-12	1 1/2	1 21/32	3/4	1.5008	1.5048	1.6558	1.6568	1.4972	1.4988
LSI-2426-16	1 1/2	1 21/32	1			1.6558	1.6568	1.4972	1.4988
LSI-2426-24	1 1/2	1 21/32	1 1/2			1.6558	1.6568	1.4972	1.4988
LSI-2426-44	1 1/2	1 21/32	2 3/4			1.6558	1.6568	1.4972	1.4988

iglide® L280 - Product Range

Sleeve bearing - Inch

iglide®
L280



Order key

Type		Dimensions		
L	S	I	-01	03-02
iglide® material	Form S (sleeve)	Inch	Inner-Ø d1 (inch)	Outer-Ø d2 (inch)
				Length b1 (inch)

For tolerance values
please refer to page 175

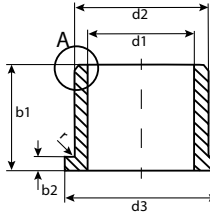
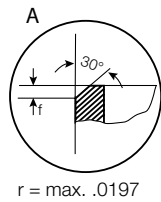
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
LSI-2629-16	1 5/8	1 25/32	1	1.6258	1.6297	1.7808	1.7818	1.6222	1.6238
LSI-2629-20	1 5/8	1 25/32	1 1/4			1.7808	1.7818	1.6222	1.6238
LSI-2831-16	1 3/4	1 15/16	1	1.7507	1.7547	1.9371	1.9381	1.7471	1.7487
LSI-2831-24	1 3/4	1 15/16	1 1/2			1.9371	1.9381	1.7471	1.7487
LSI-2831-32	1 3/4	1 15/16	2			1.9371	1.9381	1.7471	1.7487
LSI-2831-48	1 3/4	1 15/16	3			1.9371	1.9381	1.7471	1.7487
LSI-3235-16	2	2 3/16	1	2.0011	2.0057	2.1871	2.1883	1.9969	1.9981
LSI-3235-24	2	2 3/16	1 1/2			2.1871	2.1883	1.9969	1.9981
LSI-3235-32	2	2 3/16	2			2.1871	2.1883	1.9969	1.9981
LSI-3639-32	2 1/4	2 7/16	2	2.2531	2.2577	2.4365	2.4377	2.2489	2.2507

iglide®
L280

iglide® L280 - Product Range

Flange bearing - Inch



For tolerance values
please refer to page 175



Order key

Type	Dimensions
L F I	-02 03-02
iglide® material	Form F (flange)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

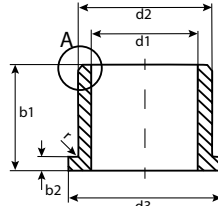
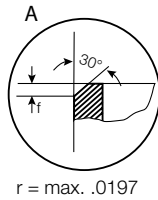
*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2 -.0055	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
LFI-0203-03	1/8	3/16	3/16	.312	.032	.1251	.1269	.1873	.1878	.1236	.1243
LFI-0203-04	1/8	3/16	1/4	.312	.032			.1873	.1878	.1236	.1243
LFI-0203-06	1/8	3/16	3/8	.312	.032			.1873	.1878	.1236	.1243
LFI-0304-02	3/16	1/4	1/8	.375	.032	.1873	.1892	.2497	.2503	.1858	.1865
LFI-0304-04	3/16	1/4	1/4	.375	.032			.2497	.2503	.1858	.1865
LFI-0304-06	3/16	1/4	3/8	.375	.032			.2497	.2503	.1858	.1865
LFI-0304-08	3/16	1/4	1/2	.375	.032	.2498	.2521	.3122	.3128	.2481	.2490
LFI-0405-04	1/4	5/16	1/4	.500	.032			.3122	.3128	.2481	.2490
LFI-0405-05	1/4	5/16	5/16	.500	.032			.3122	.3128	.2481	.2490
LFI-0405-06	1/4	5/16	3/8	.500	.032	.3125	.3148	.3122	.3128	.2481	.2490
LFI-0405-08	1/4	5/16	1/2	.500	.032			.3122	.3128	.2481	.2490
LFI-0405-12	1/4	5/16	3/4	.500	.032			.3122	.3128	.2481	.2490
LFI-0506-04	5/16	3/8	1/4	.562	.032	.3750	.3773	.3747	.3753	.3106	.3115
LFI-0506-06	5/16	3/8	3/8	.562	.032			.3747	.3753	.3106	.3115
LFI-0506-08	5/16	3/8	1/2	.562	.032			.3747	.3753	.3106	.3115
LFI-0506-12	5/16	3/8	3/4	.562	.032	.4379	.4406	.4684	.4691	.3731	.3740
LFI-0607-04	3/8	15/32	1/4	.687	.046			.4684	.4691	.3731	.3740
LFI-0607-06	3/8	15/32	3/8	.687	.046			.4684	.4691	.3731	.3740
LFI-0607-08	3/8	15/32	1/2	.687	.046	.5003	.5030	.4684	.4691	.3731	.3740
LFI-0607-12	3/8	15/32	3/4	.687	.046			.4684	.4691	.3731	.3740
LFI-0607-14	3/8	15/32	7/8	.687	.046			.4684	.4691	.3731	.3740
LFI-0607-24	3/8	15/32	1 1/2	.687	.046	.5934	.5930	.4684	.4691	.3731	.3740
LFI-0708-04	7/16	17/32	1/4	.750	.046			.5309	.5316	.4355	.4365
LFI-0708-08	7/16	17/32	1/2	.750	.046			.5309	.5316	.4355	.4365
LFI-0809-04	1/2	19/32	1/4	.875	.046	.6253	.6280	.5934	.5941	.4980	.4990
LFI-0809-06	1/2	19/32	3/8	.875	.046			.5934	.5941	.4980	.4990
LFI-0809-08	1/2	19/32	1/2	.875	.046			.5934	.5941	.4980	.4990
LFI-0809-12	1/2	19/32	3/4	.875	.046	.7507	.7541	.5934	.5941	.4980	.4990
LFI-0809-16	1/2	19/32	1	.875	.046			.5934	.5941	.4980	.4990
LFI-1011-045	5/8	23/32	9/32	.937	.046			.7184	.7192	.6230	.6240
LFI-1011-08	5/8	23/32	1/2	.937	.046	.7507	.7541	.7184	.7192	.6230	.6240
LFI-1011-12	5/8	23/32	3/4	.937	.046			.7184	.7192	.6230	.6240
LFI-1011-16	5/8	23/32	1	.937	.046			.7184	.7192	.6230	.6240
LFI-1011-24	5/8	23/32	1 1/2	.937	.046	.8747	.8755	.7184	.7192	.6230	.6240
LFI-1214-08	3/4	7/8	1/2	1.125	.062			.8747	.8755	.7479	.7491
LFI-1214-10	3/4	7/8	5/8	1.125	.062			.8747	.8755	.7479	.7491
LFI-1214-12	3/4	7/8	3/4	1.125	.062	.8747	.8755	.7479	.7491		

iglide® L280 - Product Range

Flange bearing - Inch

iglide®
L280



Order key

Type	Dimensions
L F I	-02 03-02
iglide® material	Form F (flange)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

For tolerance values
please refer to page 175

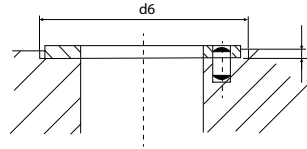
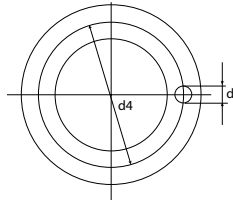
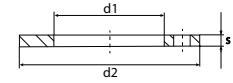
*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2 -.0055	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
LFI-1214-16	3/4	7/8	1	1.125	.062	.7507	.7541	.8747	.8755	.7479	.7491
LFI-1214-24	3/4	7/8	1 1/2	1.125	.062			.8747	.8755	.7479	.7491
LFI-1416-04	7/8	1	1/4	1.250	.062	.8757	.8791	.9997	1.0005	.8729	.8741
LFI-1416-075	7/8	1	15/32	1.250	.062			.9997	1.0005	.8729	.8741
LFI-1416-08	7/8	1	1/2	1.250	.062			.9997	1.0005	.8729	.8741
LFI-1416-115	7/8	1	23/32	1.250	.062			.9997	1.0005	.8729	.8741
LFI-1416-12	7/8	1	3/4	1.250	.062			.9997	1.0005	.8729	.8741
LFI-1416-16	7/8	1	1	1.250	.062			.9997	1.0005	.8729	.8741
LFI-1416-20	7/8	1	1 1/4	1.250	.062			.9997	1.0005	.8729	.8741
LFI-1416-24	7/8	1	1 1/2	1.250	.062			.9997	1.0005	.8729	.8741
LFI-141618-08	7/8	1	1/2	1.125	.062			.9997	1.0005	.8729	.8741
LFI-141618-10	7/8	1	5/8	1.125	.062			.9997	1.0005	.8729	.8741
LFI-141620-11	7/8	1	11/16	1.250	.062	.9997	1.0005	.8729	.8741		
LFI-1618-08	1	1 1/8	1/2	1.375	.062	1.0007	1.0041	1.1247	1.1255	.9979	.9991
LFI-1618-12	1	1 1/8	3/4	1.375	.062			1.1247	1.1255	.9979	.9991
LFI-1618-16	1	1 1/8	1	1.375	.062			1.1247	1.1255	.9979	.9991
LFI-1618-20	1	1 1/8	1 1/4	1.375	.062			1.1247	1.1255	.9979	.9991
LFI-1618-24	1	1 1/8	1 1/2	1.375	.062			1.1247	1.1255	.9979	.9991
LFI-1620-08	1	1 1/4	1/2	1.500	.188	1.0007	1.0041	1.2520	1.2559	.9979	.9991
LFI-1820-08	1 1/8	1 9/32	1/2	1.562	.078	1.1254	1.1288	1.2808	1.2818	1.1226	1.1238
LFI-1820-12	1 1/8	1 9/32	3/4	1.562	.078			1.2808	1.2818	1.1226	1.1238
LFI-1820-24	1 1/8	1 9/32	1 1/2	1.562	.078			1.2808	1.2818	1.1226	1.1238
LFI-2022-12	1 1/4	1 13/32	3/4	1.687	.078	1.2508	1.2548	1.4058	1.4068	1.2472	1.2488
LFI-2022-14	1 1/4	1 13/32	7/8	1.687	.078			1.4058	1.4068	1.2472	1.2488
LFI-2022-16	1 1/4	1 13/32	1	1.687	.078			1.4058	1.4068	1.2472	1.2488
LFI-2022-20	1 1/4	1 13/32	1 1/4	1.687	.078			1.4058	1.4068	1.2472	1.2488
LFI-2022-24	1 1/4	1 13/32	1 1/2	1.687	.078			1.4058	1.4068	1.2472	1.2488
LFI-2224-16	1 3/8	1 17/32	1	1.875	.078	1.3758	1.3798	1.5308	1.5318	1.3722	1.3738
LFI-2426-12	1 1/2	1 21/32	3/4	2.000	.078	1.5008	1.5048	1.6558	1.6568	1.4972	1.4988
LFI-2426-16	1 1/2	1 21/32	1	2.000	.078			1.6558	1.6568	1.4972	1.4988
LFI-2426-24	1 1/2	1 21/32	1 1/2	2.000	.078			1.6558	1.6568	1.4972	1.4988
LFI-2831-16	1 3/4	1 15/16	1	2.375	.093	1.7507	1.7547	1.9371	1.9381	1.7471	1.7487
LFI-2831-24	1 3/4	1 15/16	1 1/2	2.375	.093			1.9371	1.9381	1.7471	1.7487
LFI-2831-32	1 3/4	1 15/16	2	2.375	.093			1.9371	1.9381	1.7471	1.7487
LFI-3235-16	2	2 3/16	1	2.625	.093	2.0012	2.0059	2.1871	2.1883	1.9969	1.9981
LFI-3235-24	2	2 3/16	1 1/2	2.625	.093			2.1871	2.1883	1.9969	1.9981
LFI-3235-32	2	2 3/16	2	2.625	.093			2.1871	2.1883	1.9969	1.9981

iglide®
L280

iglide® L280 - Product Range

Thrust washer - Inch



Order key

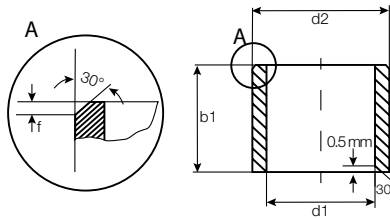
Type		Dimensions		
L	T	I	-05 09-006	
iglide® material	Form T (washer)	Inch	Inner-Ø d1 (inch)	Outer-Ø d2 (inch)
				Thickness s (inch)

Part Number	d1 +.010	d2 -.010	s -.0020	d4 +-.005	d5 +.015 +.005	h +.008	d6 +.005
LTI-0610-01	.375	.625	.040	*	*	*	.625
LTI-0814-01	.500	.875	.0585	.692	.067	.040	.875
LTI-1018-01	.625	1.125	.0585	.880	.099	.040	1.125
LTI-1220-01	.750	1.250	.0585	1.005	.099	.040	1.250
LTI-1424-01	.875	1.500	.0585	1.192	.130	.040	1.500
LTI-1628-01	1.000	1.750	.0585	1.380	.130	.040	1.750
LTI-2034-01	1.250	2.125	.0585	1.692	.161	.040	2.125
LTI-2440-01	1.500	2.500	.0585	2.005	.192	.040	2.500
LTI-2844-01	1.750	2.750	.0585	2.255	.192	.040	2.750
LTI-3248-01	2.000	3.000	.0895	2.505	.192	.070	3.000

* Designed without bore

iglide® L280 - Product Range

Sleeve bearing - Metric

**iglide®
L280**

Order key

Type	Dimensions
L S M -01 03-02	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
 please refer to page 175

Dimensions according to ISO 3547-1 and special dimensions

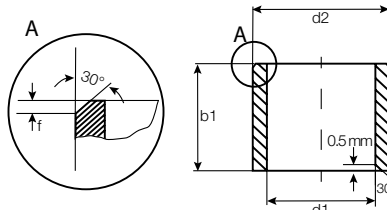
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
LSM-0203-03	2.0	3.5	3.0	2.014	2.054	3.500	3.510	1.975	2.000
LSM-0204-03	2.5	4.0	3.0	2.514	2.554	4.000	4.012	2.475	2.500
LSM-0304-03	3.0	4.5	3.0	3.014	3.054	4.500	4.512	2.975	3.000
LSM-0304-05	3.0	4.5	5.0			4.500	4.512	2.975	3.000
LSM-0304-06	3.0	4.5	6.0			4.500	4.512	2.975	3.000
LSM-0405-04	4.0	5.5	4.0	4.020	4.068	5.500	5.512	3.970	4.000
LSM-0405-06	4.0	5.5	6.0			5.500	5.512	3.970	4.000
LSM-0405-08	4.0	5.5	8.0			5.500	5.512	3.970	4.000
LSM-0405-10	4.0	5.5	10.0			5.500	5.512	3.970	4.000
LSM-0507-05	5.0	7.0	5.0	5.020	5.068	7.000	7.015	4.970	5.000
LSM-0507-08	5.0	7.0	8.0			7.000	7.015	4.970	5.000
LSM-0507-10	5.0	7.0	10.0			7.000	7.015	4.970	5.000
LSM-0607-14	6.0	7.0	14.0	6.010	6.040	7.000	7.015	5.970	6.000
LSM-0608-06	6.0	8.0	6.0	6.020	6.068	8.000	8.015	5.970	6.000
LSM-0608-08	6.0	8.0	8.0			8.000	8.015	5.970	6.000
LSM-0608-09	6.0	8.0	9.5			8.000	8.015	5.970	6.000
LSM-0608-10	6.0	8.0	10.0			8.000	8.015	5.970	6.000
LSM-0608-11	6.0	8.0	11.8			8.000	8.015	5.970	6.000
LSM-0608-13	6.0	8.0	13.8			8.000	8.015	5.970	6.000
LSM-0709-09	7.0	9.0	9.0	7.025	7.083	9.000	9.015	6.964	7.000
LSM-0709-12	7.0	9.0	12.0			9.000	9.015	6.964	7.000
LSM-0810-06	8.0	10.0	6.0	8.025	8.083	10.000	10.015	7.964	8.000
LSM-0810-08	8.0	10.0	8.0			10.000	10.015	7.964	8.000
LSM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
LSM-0810-12	8.0	10.0	12.0			10.000	10.015	7.964	8.000
LSM-0810-13	8.0	10.0	13.8			10.000	10.015	7.964	8.000
LSM-0810-15	8.0	10.0	15.0			10.000	10.015	7.964	8.000
LSM-0810-16	8.0	10.0	16.0			10.000	10.015	7.964	8.000
LSM-0810-20	8.0	10.0	20.0			10.000	10.015	7.964	8.000
LSM-0810-21	8.0	10.0	21.0			10.000	10.015	7.964	8.000
LSM-0911-06	9.0	11.0	6.0	9.025	9.083	11.000	11.018	8.964	9.000
LSM-1012-04	10.0	12.0	4.0	10.025	10.083	12.000	12.018	9.964	10.000
LSM-1012-06	10.0	12.0	6.0			12.000	12.018	9.964	10.000
LSM-1012-08	10.0	12.0	8.0			12.000	12.018	9.964	10.000
LSM-1012-09	10.0	12.0	9.0			12.000	12.018	9.964	10.000
LSM-1012-10	10.0	12.0	10.0			12.000	12.018	9.964	10.000
LSM-1012-12	10.0	12.0	12.0			12.000	12.018	9.964	10.000

iglide®
L280

iglide® L280 - Product Range

Sleeve bearing - Metric


Order key

Type	Dimensions
L S M -01 03-02	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
please refer to page 175

Dimensions according to ISO 3547-1 and special dimensions

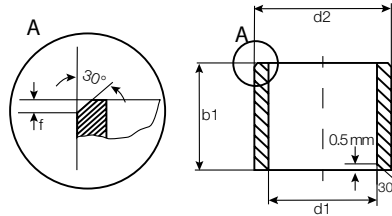
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
LSM-1012-15	10.0	12.0	15.0	10.025	10.083	12.000	12.018	9.964	10.000
LSM-1012-17	10.0	12.0	17.0			12.000	12.018	9.964	10.000
LSM-1012-20	10.0	12.0	20.0			12.000	12.018	9.964	10.000
LSM-1012-25.5	10.0	12.0	25.5			12.000	12.018	9.964	10.000
LSM-1113-08	11.0	13.0	8.0	11.032	11.102	13.000	13.018	10.957	11.000
LSM-1214-04	12.0	14.0	4.0	12.032	12.102	14.000	14.018	11.957	12.000
LSM-1214-05	12.0	14.0	5.0			14.000	14.018	11.957	12.000
LSM-1214-06	12.0	14.0	6.0			14.000	14.018	11.957	12.000
LSM-1214-08	12.0	14.0	8.0			14.000	14.018	11.957	12.000
LSM-1214-10	12.0	14.0	10.0			14.000	14.018	11.957	12.000
LSM-1214-12	12.0	14.0	12.0			14.000	14.018	11.957	12.000
LSM-1214-15	12.0	14.0	15.0			14.000	14.018	11.957	12.000
LSM-1214-20	12.0	14.0	20.0			14.000	14.018	11.957	12.000
LSM-1214-25	12.0	14.0	25.0			14.000	14.018	11.957	12.000
LSM-1315-07	13.0	15.0	7.0			13.032	13.102	15.000	15.018
LSM-1315-10	13.0	15.0	10.0	15.000	15.018			12.957	13.000
LSM-1315-15	13.0	15.0	15.0	15.000	15.018			12.957	13.000
LSM-1315-20	13.0	15.0	20.0	15.000	15.018			12.957	13.000
LSM-1416-07	14.0	16.0	7.5	14.032	14.102	16.000	16.018	13.957	14.000
LSM-1416-10	14.0	16.0	10.0			16.000	16.018	13.957	14.000
LSM-1416-15	14.0	16.0	15.0			16.000	16.018	13.957	14.000
LSM-1416-20	14.0	16.0	20.0			16.000	16.018	13.957	14.000
LSM-1416-25	14.0	16.0	25.0			16.000	16.018	13.957	14.000
LSM-1416-33	14.0	16.0	33.0			16.000	16.018	13.957	14.000
LSM-1517-10	15.0	17.0	10.0	15.032	15.102	17.000	17.018	14.957	15.000
LSM-1517-15	15.0	17.0	15.0			17.000	17.018	14.957	15.000
LSM-1517-20	15.0	17.0	20.0			17.000	17.018	14.957	15.000
LSM-1517-25	15.0	17.0	25.0			17.000	17.018	14.957	15.000
LSM-1618-07	16.0	18.0	7.0	16.032	16.102	18.000	18.018	15.957	16.000
LSM-1618-08	16.0	18.0	8.0			18.000	18.018	15.957	16.000
LSM-1618-11	16.0	18.0	11.5			18.000	18.018	15.957	16.000
LSM-1618-12	16.0	18.0	12.0			18.000	18.018	15.957	16.000
LSM-1618-15	16.0	18.0	15.0			18.000	18.018	15.957	16.000
LSM-1618-20	16.0	18.0	20.0			18.000	18.018	15.957	16.000
LSM-1618-25	16.0	18.0	25.0			18.000	18.018	15.957	16.000
LSM-1618-30	16.0	18.0	30.0			18.000	18.018	15.957	16.000
LSM-1618-35	16.0	18.0	35.0			18.000	18.018	15.957	16.000

iglide® L280 - Product Range

Sleeve bearing - Metric

iglide®
L280



Order key

Type	Dimensions
L S M -01 03-02	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

For tolerance values please refer to page 175

Dimensions according to ISO 3547-1 and special dimensions

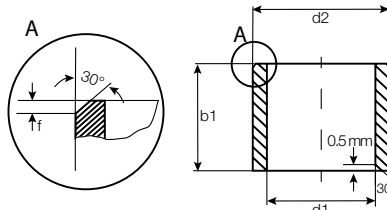
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size			
				Min.	Max.	Min.	Max.	Min.	Max.		
LSM-1618-42	16.0	18.0	42.0	16.032	16.102	18.000	18.018	15.957	16.000		
LSM-1618-45	16.0	18.0	45.0			18.000	18.018	15.957	16.000		
LSM-1820-12	18.0	20.0	12.0	18.032	18.102	20.000	20.021	17.957	18.000		
LSM-1820-15	18.0	20.0	15.0			20.000	20.021	17.957	18.000		
LSM-1820-20	18.0	20.0	20.0			20.000	20.021	17.957	18.000		
LSM-1820-25	18.0	20.0	25.0			20.000	20.021	17.957	18.000		
LSM-1820-33	18.0	20.0	33.0			20.000	20.021	17.957	18.000		
LSM-1820-35	18.0	20.0	35.0			20.000	20.021	17.957	18.000		
LSM-1922-28	19.0	22.0	28.0			19.040	19.124	22.000	22.021	18.94	19.000
LSM-2022-11	20.0	22.0	11.5	20.040	20.124	22.000	22.021	19.948	20.000		
LSM-2022-12	20.0	22.0	12.0			22.000	22.021	19.948	20.000		
LSM-2022-15	20.0	22.0	15.0			22.000	22.021	19.948	20.000		
LSM-2022-20	20.0	22.0	20.0			22.000	22.021	19.948	20.000		
LSM-2022-30	20.0	22.0	30.0			22.000	22.021	19.948	20.000		
LSM-2023-10	20.0	23.0	10.0			20.040	20.124	23.000	23.021	19.948	20.000
LSM-2023-15	20.0	23.0	15.0					23.000	23.021	19.948	20.000
LSM-2023-20	20.0	23.0	20.0	23.000	23.021			19.948	20.000		
LSM-2023-23	20.0	23.0	23.0	23.000	23.021			19.948	20.000		
LSM-2023-25	20.0	23.0	25.0	23.000	23.021			19.948	20.000		
LSM-2023-30	20.0	23.0	30.0	23.000	23.021			19.948	20.000		
LSM-2224-15	22.0	24.0	15.0	22.040	22.124	24.000	24.021	21.948	22.000		
LSM-2224-20	22.0	24.0	20.0			24.000	24.021	21.948	22.000		
LSM-2224-30	22.0	24.0	30.0			24.000	24.021	21.948	22.000		
LSM-2224-35	22.0	24.0	35.0			24.000	24.021	21.948	22.000		
LSM-2225-15	22.0	25.0	15.0	22.040	22.124	25.000	25.021	21.948	22.000		
LSM-2225-20	22.0	25.0	20.0			25.000	25.021	21.948	22.000		
LSM-2225-25	22.0	25.0	25.0			25.000	25.021	21.948	22.000		
LSM-2225-30	22.0	25.0	30.0			25.000	25.021	21.948	22.000		
LSM-2427-15	24.0	27.0	15.0	24.040	24.124	27.000	27.021	23.948	24.000		
LSM-2427-20	24.0	27.0	20.0			27.000	27.021	23.948	24.000		
LSM-2427-25	24.0	27.0	25.0			27.000	27.021	23.948	24.000		
LSM-2427-30	24.0	27.0	30.0			27.000	27.021	23.948	24.000		
LSM-2528-12	25.0	28.0	12.0	25.040	25.124	28.000	28.021	24.948	25.000		
LSM-2528-14	25.0	28.0	14.0			28.000	28.021	24.948	25.000		
LSM-2528-15	25.0	28.0	15.0			28.000	28.021	24.948	25.000		
LSM-2528-20	25.0	28.0	20.0			28.000	28.021	24.948	25.000		
LSM-2528-25	25.0	28.0	25.0			28.000	28.021	24.948	25.000		

iglide®
L280

iglide® L280 - Product Range

Sleeve bearing - Metric


Order key

Type	Dimensions
L S M -01 03-02	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
please refer to page 175

Dimensions according to ISO 3547-1 and special dimensions

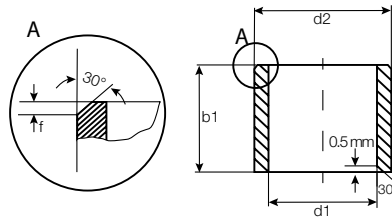
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
LSM-2528-30	25.0	28.0	30.0	25.040	25.124	28.000	28.021	24.948	25.000
LSM-2630-16	26.0	30.0	16.0	26.040	26.124	30.000	30.021	25.948	26.000
LSM-2630-25	26.0	30.0	25.0			30.000	30.021	25.948	26.000
LSM-2830-10	28.0	30.0	10.0	28.040	28.124	30.000	30.021	27.948	28.000
LSM-2831-10	28.0	31.0	10.0	28.040	28.124	31.000	31.025	27.948	28.000
LSM-2832-20	28.0	32.0	20.0	28.040	28.124	32.000	32.025	27.948	28.000
LSM-2832-25	28.0	32.0	25.0			32.000	32.025	27.948	28.000
LSM-2832-30	28.0	32.0	30.0			32.000	32.025	27.948	28.000
LSM-3034-16	30.0	34.0	16.0	30.040	30.124	34.000	34.025	29.948	30.000
LSM-3034-20	30.0	34.0	20.0			34.000	34.025	29.948	30.000
LSM-3034-24	30.0	34.0	24.0			34.000	34.025	29.948	30.000
LSM-3034-25	30.0	34.0	25.0			34.000	34.025	29.948	30.000
LSM-3034-30	30.0	34.0	30.0			34.000	34.025	29.948	30.000
LSM-3034-36	30.0	34.0	36.0			34.000	34.025	29.948	30.000
LSM-3034-38	30.0	34.0	38.0			34.000	34.025	29.948	30.000
LSM-3034-40	30.0	34.0	40.0			34.000	34.025	29.948	30.000
LSM-3034-47	30.0	34.0	47.0			34.000	34.025	29.948	30.000
LSM-3236-20	32.0	36.0	20.0			32.050	32.150	36.000	36.025
LSM-3236-25	32.0	36.0	25.0	36.000	36.025			31.938	32.000
LSM-3236-30	32.0	36.0	30.0	36.000	36.025			31.938	32.000
LSM-3236-40	32.0	36.0	40.0	36.000	36.025			31.938	32.000
LSM-3539-20	35.0	39.0	20.0	35.050	35.150	39.000	39.025	34.938	35.000
LSM-3539-30	35.0	39.0	30.0			39.000	39.025	34.938	35.000
LSM-3539-40	35.0	39.0	40.0			39.000	39.025	34.938	35.000
LSM-3539-50	35.0	39.0	50.0			39.000	39.025	34.938	35.000
LSM-4044-20	40.0	44.0	20.0	40.050	40.150	44.000	44.025	39.938	40.000
LSM-4044-30	40.0	44.0	30.0			44.000	44.025	39.938	40.000
LSM-4044-40	40.0	44.0	40.0			44.000	44.025	39.938	40.000
LSM-4044-50	40.0	44.0	50.0			44.000	44.025	39.938	40.000
LSM-4550-20	45.0	50.0	20.0	45.050	45.150	50.000	50.025	44.938	45.000
LSM-4550-30	45.0	50.0	30.0			50.000	50.025	44.938	45.000
LSM-4550-40	45.0	50.0	40.0			50.000	50.025	44.938	45.000
LSM-4550-50	45.0	50.0	50.0			50.000	50.025	44.938	45.000
LSM-5055-20	50.0	55.0	20.0	50.050	50.150	55.000	55.030	49.938	50.000
LSM-5055-30	50.0	55.0	30.0			55.000	55.030	49.938	50.000
LSM-5055-40	50.0	55.0	40.0			55.000	55.030	49.938	50.000
LSM-5055-50	50.0	55.0	50.0			55.000	55.030	49.938	50.000

iglide® L280 - Product Range

Sleeve bearing - Metric

iglide®
L280



Order key

Type		Dimensions		
L	S	M	-01	03-02
iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)
				Length b1 (mm)

For tolerance values
please refer to page 175

Dimensions according to ISO 3547-1 and special dimensions

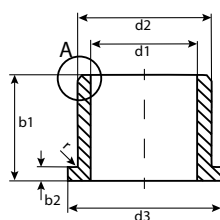
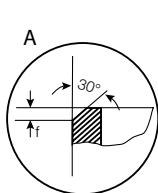
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
LSM-5560-40	55.0	60.0	40.0	55.060	55.180	60.000	60.030	54.926	55.000
LSM-5560-60	55.0	60.0	60.0			60.000	60.030	54.926	55.000
LSM-6065-30	60.0	65.0	30.0	60.060	60.180	65.000	65.030	59.926	60.000
LSM-6065-60	60.0	65.0	60.0			65.000	65.030	59.926	60.000
LSM-6570-60	65.0	70.0	60.0	65.060	65.180	70.000	70.030	64.926	65.000
LSM-7075-60	70.0	75.0	60.0	70.060	70.180	75.000	75.030	69.926	70.000
LSM-7580-100	75.0	80.0	100.0	75.060	75.180	80.000	80.030	74.926	75.000
LSM-8085-100	80.0	85.0	100.0	80.060	80.180	85.000	85.035	79.926	80.000
LSM-9095-100	90.0	95.0	100.0	90.072	90.212	95.000	95.035	89.913	90.000
LSM-100105-100	100.0	105.0	100.0	100.072	100.212	105.000	105.035	99.913	100.000

iglide®
L280

iglide® L280 - Product Range

Flange bearing - Metric



Order key

Type Dimensions

L F M -01 03-02

iglide® material
Form F (flange)
Metric
Inner-Ø d1 (mm)
Outer-Ø d2 (mm)
Length b1 (mm)

r = max. 0.5

For tolerance values
please refer to page 175

Dimensions according to ISO 3547-1 and special dimensions

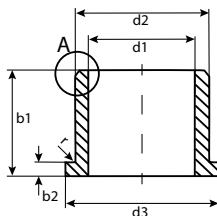
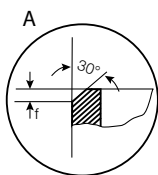
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
LFM-0304-03	3.0	4.5	7.5	3.0	0.75	3.014	3.054	4.500	4.512	2.975	3.000
LFM-0304-05	3.0	4.5	7.5	5.0	0.75			4.500	4.512	2.975	3.000
LFM-0405-03	4.0	5.5	9.5	3.0	0.75	4.020	4.068	5.500	5.512	3.970	4.000
LFM-0405-04	4.0	5.5	9.5	4.0	0.75			5.500	5.512	3.970	4.000
LFM-0405-06	4.0	5.5	9.5	6.0	0.75			5.500	5.512	3.970	4.000
LFM-0506-08	5.0	6.0	10.0	8.0	0.5	5.010	5.040	6.000	6.012	4.970	5.000
LFM-0507-04	5.0	7.0	11.0	4.0	1.0	5.020	5.068	7.000	7.015	4.970	5.000
LFM-0507-05	5.0	7.0	11.0	5.0	1.0			7.000	7.015	4.970	5.000
LFM-0608-04	6.0	8.0	12.0	4.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
LFM-0608-06	6.0	8.0	12.0	6.0	1.0			8.000	8.015	5.970	6.000
LFM-0608-08	6.0	8.0	12.0	8.0	1.0			8.000	8.015	5.970	6.000
LFM-0608-10	6.0	8.0	12.0	10.0	1.0			8.000	8.015	5.970	6.000
LFM-0608-15	6.0	8.0	12.0	15.0	1.0			8.000	8.015	5.970	6.000
LFM-0709-12	7.0	9.0	15.0	12.0	1.0	7.025	7.083	9.000	9.015	6.964	7.000
LFM-0810-02	8.0	10.0	15.0	2.7	1.0	8.025	8.083	10.000	10.015	7.964	8.000
LFM-0810-05	8.0	10.0	15.0	5.5	1.0			10.000	10.015	7.964	8.000
LFM-0810-07	8.0	10.0	15.0	7.5	1.0			10.000	10.015	7.964	8.000
LFM-0810-09	8.0	10.0	15.0	9.5	1.0			10.000	10.015	7.964	8.000
LFM-0810-10	8.0	10.0	15.0	10.0	1.0			10.000	10.015	7.964	8.000
LFM-0810-23	8.0	10.0	15.0	23.0	1.0			10.000	10.015	7.964	8.000
LFM-0810-30	8.0	10.0	15.0	30.0	1.0			10.000	10.015	7.964	8.000
LFM-081015-05	8.0	10.0	15.0	5.0	1.0			10.000	10.015	7.964	8.000
LFM-1012-04	10.0	12.0	18.0	4.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
LFM-1012-05	10.0	12.0	18.0	5.0	1.0			12.000	12.018	9.964	10.000
LFM-1012-06	10.0	12.0	18.0	6.0	1.0			12.000	12.018	9.964	10.000
LFM-1012-07	10.0	12.0	18.0	7.0	1.0			12.000	12.018	9.964	10.000
LFM-1012-09	10.0	12.0	18.0	9.0	1.0			12.000	12.018	9.964	10.000
LFM-1012-10	10.0	12.0	18.0	10.0	1.0			12.000	12.018	9.964	10.000
LFM-1012-12	10.0	12.0	18.0	12.0	1.0			12.000	12.018	9.964	10.000
LFM-1012-15	10.0	12.0	18.0	15.0	1.0			12.000	12.018	9.964	10.000
LFM-1012-17	10.0	12.0	18.0	17.0	1.0			12.000	12.018	9.964	10.000
LFM-1214-04	12.0	14.0	20.0	4.0	1.0			12.032	12.102	14.000	14.018
LFM-1214-06	12.0	14.0	20.0	6.0	1.0	14.000	14.018			11.957	12.000
LFM-1214-07	12.0	14.0	20.0	7.0	1.0	14.000	14.018			11.957	12.000
LFM-1214-09	12.0	14.0	20.0	9.0	1.0	14.000	14.018			11.957	12.000
LFM-1214-10	12.0	14.0	20.0	10.0	1.0	14.000	14.018			11.957	12.000
LFM-1214-11	12.0	14.0	20.0	11.0	1.0	14.000	14.018			11.957	12.000

iglide® L280 - Product Range

Flange bearing - Metric

iglide®
L280



Order key

Type	Dimensions
L F M -01 03-02	
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

r = max. 0.5

For tolerance values please refer to page 175

Dimensions according to ISO 3547-1 and special dimensions

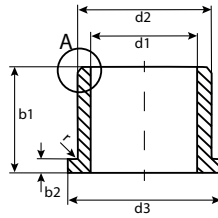
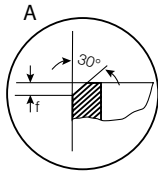
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
LFM-1214-12	12.0	14.0	20.0	12.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
LFM-1214-15	12.0	14.0	20.0	15.0	1.0			14.000	14.018	11.957	12.000
LFM-1214-17	12.0	14.0	20.0	17.0	1.0			14.000	14.018	11.957	12.000
LFM-1214-20	12.0	14.0	20.0	20.0	1.0			14.000	14.018	11.957	12.000
LFM-1315-06	13.0	15.0	22.0	6.0	1.0	13.032	13.102	15.000	15.018	12.957	13.000
LFM-1416-04	14.0	16.0	22.0	4.0	1.0	14.032	14.102	16.000	16.018	13.957	14.000
LFM-1416-05	14.0	16.0	22.0	5.0	1.0			16.000	16.018	13.957	14.000
LFM-1416-08	14.0	16.0	22.0	8.0	1.0			16.000	16.018	13.957	14.000
LFM-1416-12	14.0	16.0	22.0	12.0	1.0			16.000	16.018	13.957	14.000
LFM-1416-17	14.0	16.0	22.0	17.0	1.0			16.000	16.018	13.957	14.000
LFM-1416-29	14.0	16.0	22.0	29.0	1.0			16.000	16.018	13.957	14.000
LFM-1517-09	15.0	17.0	23.0	9.0	1.0	15.022	15.102	17.000	17.018	14.957	15.000
LFM-1517-12	15.0	17.0	23.0	12.0	1.0			17.000	17.018	14.957	15.000
LFM-1517-17	15.0	17.0	23.0	17.0	1.0			17.000	17.018	14.957	15.000
LFM-1517-20	15.0	17.0	23.0	20.0	1.0			17.000	17.018	14.957	15.000
LFM-1618-09	16.0	18.0	24.0	9.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
LFM-1618-12	16.0	18.0	24.0	12.0	1.0			18.000	18.018	15.957	16.000
LFM-1618-17	16.0	18.0	24.0	17.0	1.0			18.000	18.018	15.957	16.000
LFM-1719-12	17.0	19.0	25.0	12.0	1.0	17.032	17.102	19.000	19.021	16.957	17.000
LFM-1719-18	17.0	19.0	25.0	18.0	1.0			19.000	19.021	16.957	17.000
LFM-1719-25	17.0	19.0	25.0	25.0	1.0			19.000	19.021	16.957	17.000
LFM-1820-06	18.0	20.0	26.0	6.0	1.0	18.032	18.102	20.000	20.021	17.957	18.000
LFM-1820-12	18.0	20.0	26.0	12.0	1.0			20.000	20.021	17.957	18.000
LFM-1820-17	18.0	20.0	26.0	17.0	1.0			20.000	20.021	17.957	18.000
LFM-1820-22	18.0	20.0	26.0	22.0	1.0			20.000	20.021	17.957	18.000
LFM-2023-11	20.0	23.0	23.0	11.0	1.5	20.040	20.124	23.000	23.021	19.948	20.000
LFM-2023-14	20.0	23.0	30.0	14.5	1.5			23.000	23.021	19.948	20.000
LFM-2023-16	20.0	23.0	30.0	16.0	1.5			23.000	23.021	19.948	20.000
LFM-2023-21	20.0	23.0	30.0	21.0	1.5			23.000	23.021	19.948	20.000
LFM-2427-10	24.0	27.0	32.0	10.5	1.5	24.040	24.124	27.000	27.021	23.948	24.000
LFM-2528-11	25.0	28.0	35.0	11.0	1.5	25.040	25.124	28.000	28.021	24.948	25.000
LFM-2528-16	25.0	28.0	35.0	16.5	1.5			28.000	28.021	24.948	25.000
LFM-2528-21	25.0	28.0	35.0	21.5	1.5			28.000	28.021	24.948	25.000
LFM-2528-30	25.0	28.0	35.0	30.0	1.5			28.000	28.021	24.948	25.000
LFM-252831-13	25.0	28.0	31.0	13.0	1.5			28.000	28.021	24.948	25.000
LFM-2830-36	28.0	30.0	35.0	36.0	1.0	28.040	28.124	30.000	30.025	27.948	28.000
LFM-3034-10	30.0	34.0	42.0	10.0	2.0	30.040	30.124	34.000	34.025	29.948	30.000

iglide®
L280

iglide® L280 - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
L F M	-01 03-02
iglide® material	Form F (flange)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

 $r = \max. 0.5$

 For tolerance values
please refer to page 175

Dimensions according to ISO 3547-1 and special dimensions

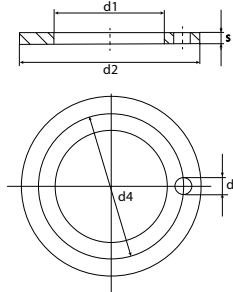
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3 d13	b1 h13	b2 -0.14	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
LFM-3034-16	30.0	34.0	42.0	16.0	2.0	30.040	30.124	34.000	34.025	29.948	30.000
LFM-3034-26	30.0	34.0	42.0	26.0	2.0			34.000	34.025	29.948	30.000
LFM-3034-37	30.0	34.0	42.0	37.0	2.0			34.000	34.025	29.948	30.000
LFM-3236-16	32.0	36.0	40.0	16.0	2.0	32.050	32.150	36.000	36.025	31.938	32.000
LFM-3236-26	32.0	36.0	40.0	26.0	2.0			36.000	36.025	31.938	32.000
LFM-3539-09	35.0	39.0	47.0	9.0	2.0	35.050	35.150	39.000	39.025	34.938	35.000
LFM-3539-16	35.0	39.0	47.0	16.0	2.0			39.000	39.025	34.938	35.000
LFM-3539-26	35.0	39.0	47.0	26.0	2.0			39.000	39.025	34.938	35.000
LFM-353950-35	35.0	39.0	50.0	35.0	2.0			39.000	39.025	34.938	35.000
LFM-3842-22	38.0	42.0	50.0	22.0	2.0	38.050	38.150	42.000	42.025	37.938	38.000
LFM-4044-30	40.0	44.0	52.0	30.0	2.0	40.050	40.150	44.000	44.025	39.938	40.000
LFM-4044-40	40.0	44.0	52.0	40.0	2.0			44.000	44.025	39.938	40.000
LFM-4550-50	45.0	50.0	58.0	50.0	2.0	45.050	45.150	50.000	50.025	44.938	45.000
LFM-5055-40	50.0	55.0	63.0	40.0	2.0	50.050	50.150	55.000	55.030	49.938	50.000
LFM-5055-50	50.0	55.0	63.0	50.0	2.0			55.000	55.030	49.938	50.000
LFM-5560-60	55.0	60.0	68.0	60.0	2.0	55.060	55.180	60.000	60.030	54.926	55.000
LFM-5762-40	57.0	62.0	67.0	40.0	2.0	57.060	57.180	62.000	62.030	57.926	57.000
LFM-6065-60	60.0	65.0	73.0	60.0	2.0	60.060	60.180	65.000	65.030	59.926	60.000
LFM-6570-60	65.0	70.0	78.0	60.0	2.0	65.060	65.180	70.000	70.030	64.926	65.000
LFM-7075-100	70.0	75.0	83.0	100.0	2.0	70.060	70.180	75.000	75.030	69.926	70.000
LFM-7580-100	75.0	80.0	88.0	100.0	2.0	75.060	75.180	80.000	80.030	74.926	75.000
LFM-8085-100	80.0	85.0	93.0	100.0	2.5	80.060	80.180	85.000	85.035	79.926	80.000
LFM-9095-100	90.0	95.0	103.0	100.0	2.5	90.072	90.212	95.000	95.035	90.913	90.000
LFM-100105-100	100.0	105.0	113.0	100.0	2.5	100.072	100.212	105.000	105.035	99.913	100.000
LFM-120125-100	120.0	125.0	133.0	100.0	2.5	120.072	120.212	125.000	125.035	119.900	120.000

iglide® L280 - Product Range

Thrust washer - Metric

iglide®
L280



Order key

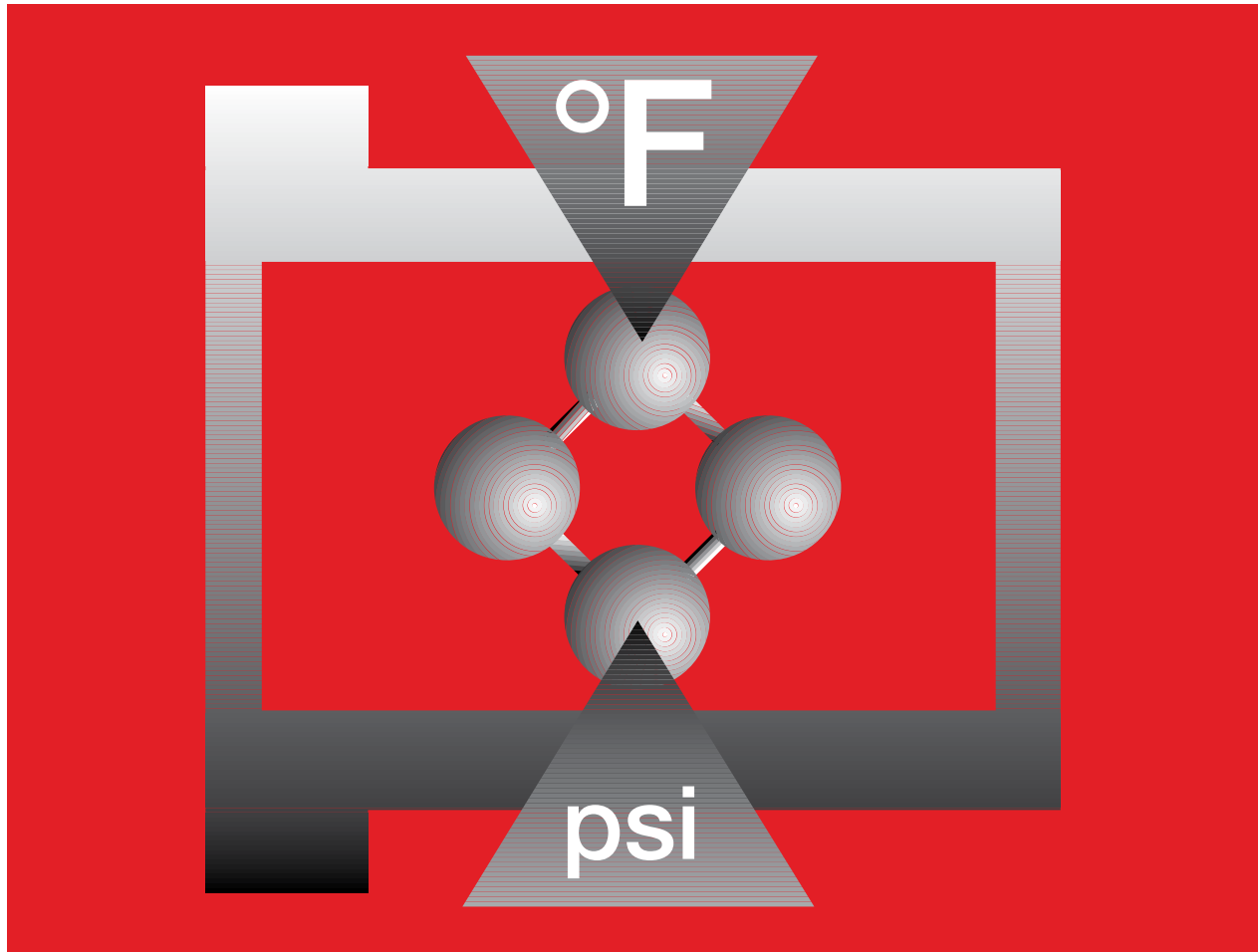
Type	Dimensions
L T M	-05 09-006
iglide® material	Form T (washer)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Thickness s (inch)

Part Number	d1 +0.25	d2 -0.25	s -0.05	d4 -0.12 +0.12	d5 +0.375 +0.125	h +0.2 -0.2	d6 +0.12
LTM-0509-006	5.0	9.5	0.6	*	*	.3	9.5
LTM-0620-015	6.0	20.0	1.5	13.0	1.5	1.0	20.0
LTM-0818-015	8.0	18.0	1.5	13.0	1.5	1.0	18.0
LTM-1018-010	10.0	18.0	1.0	*	*	.7	18.0
LTM-1018-015	10.0	18.0	1.5	*	*	.7	18.0
LTM-1224-015	12.0	24.0	1.5	18.0	1.5	1.0	24.0
LTM-1426-015	14.0	26.0	1.5	20.0	2.0	1.0	26.0
LTM-1524-015	15.0	24.0	1.5	19.5	1.5	1.0	24.0
LTM-1630-015	16.0	30.0	1.5	23.0	2.0	1.0	30.0
LTM-1832-015	18.0	32.0	1.5	25.0	2.0	1.0	32.0
LTM-2036-015	20.0	36.0	1.5	28.0	3.0	1.0	36.0
LTM-2238-015	22.0	38.0	1.5	30.0	3.0	1.0	38.0
LTM-2442-015	24.0	42.0	1.5	33.0	3.0	1.0	42.0
LTM-2644-015	26.0	44.0	1.5	35.0	3.0	1.0	44.0
LTM-2848-015	28.0	48.0	1.5	38.0	4.0	1.0	48.0
LTM-3254-015	32.0	54.0	1.5	43.0	4.0	1.0	54.0
LTM-3862-015	38.0	62.0	1.5	50.0	4.0	1.0	62.0
LTM-4266-015	42.0	66.0	1.5	54.0	4.0	1.0	66.0
LTM-4874-020	48.0	74.0	2.0	61.0	4.0	1.5	74.0
LTM-5278-020	52.0	78.0	2.0	65.0	4.0	1.5	78.0
LTM-6290-020	62.0	90.0	2.0	76.0	4.0	1.5	90.0
LTM-82110-020	82.0	110.0	2.0	*	*	1.5	110.0
LTM-102130-020	102.0	130.0	2.0	*	*	1.5	130.0
LTM-120150-020	120.0	150.0	2.0	*	*	1.5	150.0

* Design without bore

iglide®
L280

iglide® L280 - Notes



iglide® T500

- Temperature resistant from -148°F to 482°F in continuous operation
- Universal resistance to chemicals
- High compressive strength
- Very low moisture absorption
- Excellent wear resistance through the entire temperature range

iglide®
T500

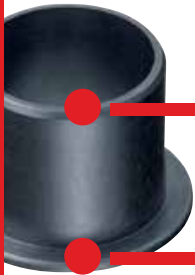
iglide® T500 - High-Tech Problem Solver

High temperature and chemical resistance

Temperature resistant
from -148°F to 482°F in
continuous operation



Universal resistance to chemicals



High compressive strength

Very low moisture absorption



Excellent wear resistance through
the entire temperature range

iglide® T500 is defined by its combination of high temperature resistance with compressive strength, along with high resistance to chemicals. iglide® T500 is designed for higher speeds than other iglide® bearings.



- When especially high temperature resistance is necessary
- For pressure loads up to 21,760 psi
- For linear movements with a hard stainless steel
- For linear movements especially at high temperatures
- When universal resistance to chemicals is required
- Very low moisture absorption



- For very low wear at high loads
 - iglide® Q
 - iglide® Z
- For economical underwater applications
 - iglide® H
 - iglide® H370
- For edge compression
 - iglide® Z



Available from stock

Detailed information about delivery time online.
This product may also appear online under the
German material name iglidur® X.



max. +482°F
min. -148°F



Price breaks online

No minimum order.



Ø 1/8 to 2-3/4 inches
more dimensions on request



Typical application areas

- Beverage technology
- Cleanroom
- Woodworking
- Plastic processing
- Aerospace engineering industry



Ø 2 to 75 mm
more dimensions on request



iglide® T500 - Technical Data

 iglide®
T500

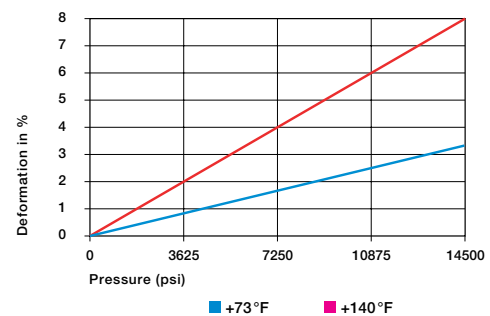
Material Properties Table

General Properties	Unit	iglide® T500	Testing Method
Density	g/cm ³	1.44	
Color		black	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.1	DIN 53495
Max. moisture absorption	% weight	0.5	
Coefficient of friction, dynamic against steel	μ	0.09 - 0.27	
pv value, max. (dry)	psi x fpm	37,700	
Mechanical Properties			
Modulus of elasticity	psi	1,174,800	DIN 53457
Tensile strength at 68°F	psi	24,660	DIN 53452
Compressive strength	psi	14,500	
Permissible static surface pressure (68°F)	psi	21,760	
Shore D-hardness		85	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	482	
Max. application temperature, short-term	°F	599	
Min. application temperature	°F	-148	
Thermal conductivity	W/m x K	0.6	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	5	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	< 10 ⁵	DIN IEC 93
Surface resistance	Ω	< 10 ⁹	DIN 53482

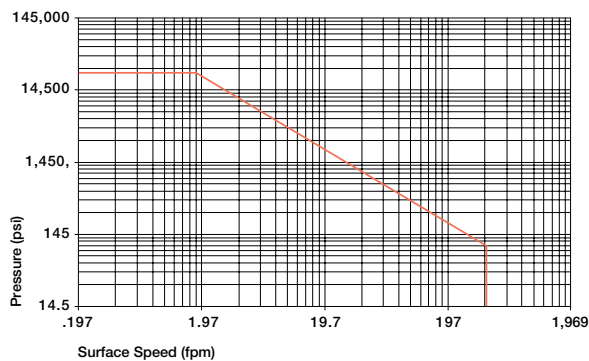
Compressive Strength

The graph shows the special compression resistance of iglide® T500 also at very high temperatures. Even at the highest long-term application temperature of 482°F, iglide® T500 plain bearings still withstand a static surface pressure of approximately 4350 psi.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® T500 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® T500 is designed for higher speeds than other iglide® bearings. This is due to its high temperature resistance and excellent heat conductivity. These benefits are readily apparent in the pv values of max. 37,700 psi x fpm. However, only the smallest radial loads may act on the bearings. At the given speeds, friction can cause a temperature increase to maximum permissible levels.

- Surface speed, Page 64
- pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	295	689
Oscillating	216	492
Linear	984	1968

Maximum surface speeds

iglide®
T500

iglide® T500 - Technical Data

Temperatures

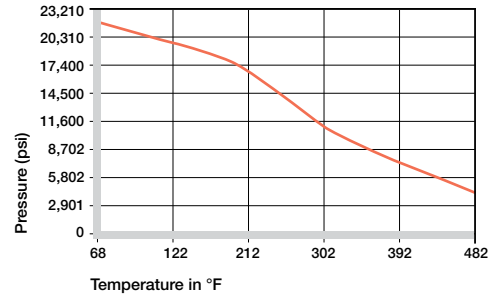
In terms of temperature resistance, iglide® T500 has taken on a leading position. Having a permissible long-term application temperature of 482°F, iglide® T500 will even withstand 599°F for the short-term.

As in all thermoplastics, the compression resistance of T500 decreases with increased temperature. However, the wear drops considerably when used within the observed temperature range of 73°F to 302°F. In certain cases, relaxation of the bearing can occur at temperatures greater than 275°F. This could lead to the bearing moving out of the housing after re-cooling. At temperatures over 275°F, the axial securing of the bearing in the housing needs to be tested. If necessary, secondary measures must be taken to mechanically secure the bearing. Please contact us if you have questions on bearing use.

► Application temperatures, Page 67

iglide® T500	Application Temperature
Minimum	- 148°F
Max. long-term	+482°F
Max. short-term	+599°F
Additional axial securing	+275°F

Temperature limits for iglide® T500



Recommended maximum permissible static surface pressure of iglide® T500 as a result of temperature

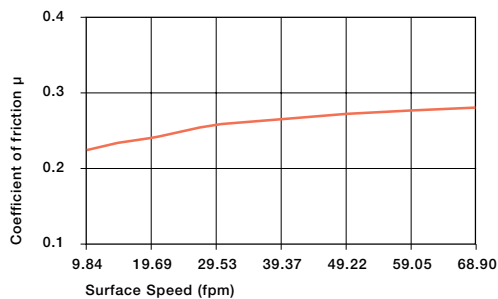
Friction and Wear

Similar to wear resistance, the coefficient of friction μ also changes with the load. The coefficient of friction increases with an increase in surface speed. On the other hand, an increased load has an inverse effect: the coefficient of friction decreases. This explains the excellent performance of iglide®T500 plain bearings for high loads.

Friction and wear are also dependent to a large degree on the shafting partner. Shafts that are too smooth increase the coefficient of friction of the bearing. For iglide® T500, a ground surface with an average roughness range of 24 - 32 rms is recommended for the shaft.

► Coefficients of friction and surfaces, Page 68

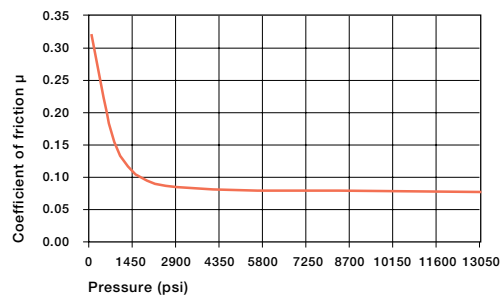
► Wear resistance, Page 69



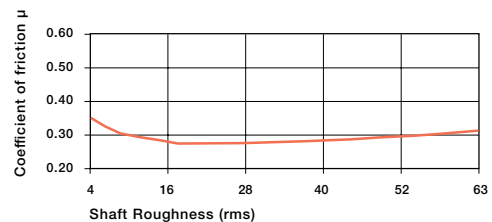
Coefficient of friction for iglide® T500 as a result of the surface speed; p = 108 psi, 1050 hard chromed

iglide® T500	Coefficient of Friction
Dry	0.09 - 0.27
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction for iglide® T500 against steel
(Shaft finish = 40 rms, 50 HRC)



Coefficient of friction for iglide® T500 as a result of the load, v = 1.97 fpm



Coefficients of friction as a function of the shaft surface (1050 hard chromed)

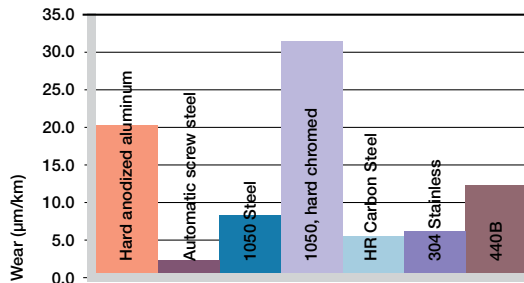
iglide® T500 - Technical Data

iglide®
T500

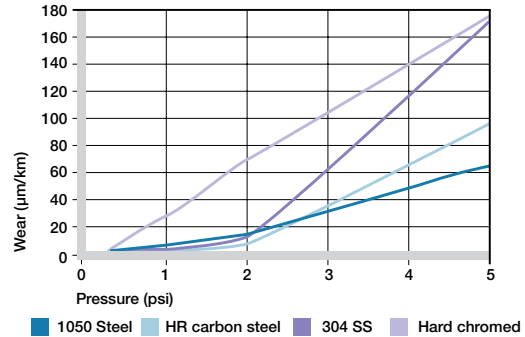
Shaft Materials

The graphs show results of testing different shaft materials with plain bearings made of iglide® T500. For low loads in rotating operation, the best wear values are found with 303 Stainless and HR Carbon Steel shafts. However, above a load of 290 psi, the bearing wear greatly increases with these two shaft materials. For the higher load range, hard-chromed shafts or Cold Rolled Steel shafts are advantageous. In oscillating operation at low loads, similar wear values for cold rolled steel and 303 stainless steel shafts occur. The wear is somewhat higher than during rotational movements. If the shaft material you plan to use is not contained in this list, please contact us.

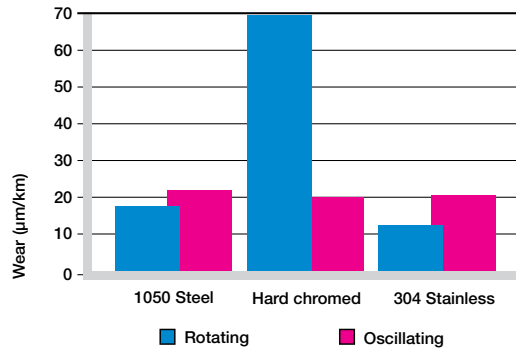
► Shaft Materials, Page 71



Wear of iglide® T500 with different shaft materials, p = 108 psi, v = 98 fpm



Wear of iglide® T500 with different shaft materials in rotational operation

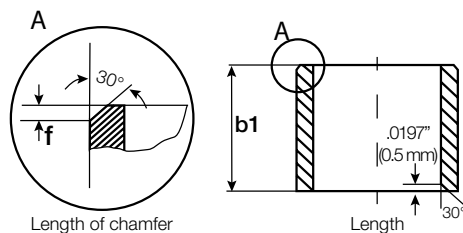


Wear for oscillating and rotating applications with different shaft materials p = 290 psi

Installation Tolerances

iglide® T500 plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

- Tolerance table, Page 75
- Testing methods, Page 76



For Inch Size Bearings

Length Tolerance (b1)		
Length (inches)	Tolerance (h13) (inches)	Length of Chamfer (f) Based on d1
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings

Length Tolerance (b1)		
Length (mm)	Tolerance (h13) (mm)	Length of Chamfer (f) Based on d1
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

iglide®
T500

iglide® T500 - Technical Data

Chemical Resistance

iglide® T500 plain bearings are close to universally resistant to chemicals. They are only attacked by concentrated nitric acid and by sulfuric acid with acidity levels over 65%. The list at the end of this catalog provides more comprehensive detailed information.

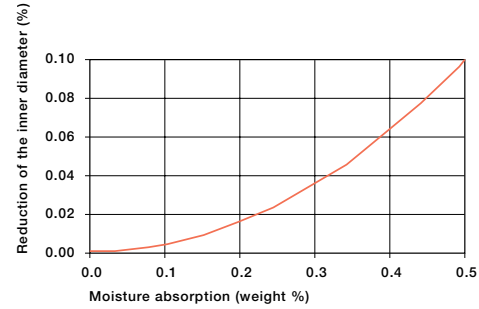
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	+
Strong acids	-
Weak alkaline	+
Strong alkaline	+

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® T500

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® T500 plain bearings

Radiation Resistance

Plain bearings made from iglide® T500 are resistant to radiation up to an intensity of 1×10^5 Gy. iglide® T500 is the most radioactive-resistant material of the iglide® product line. iglide® T500 is extremely resistant to hard gamma radiation and withstands a radiation dose of 1000 Mrad without detectable change in its properties. The material also withstands an alpha or beta radiation of 10,000 Mrad with practically no damage.

UV Resistance

The excellent material properties of iglide® T500 do not change under UV radiation and other weathering effects.

Vacuum

In a vacuum environment, iglide® T500 plain bearings can be used virtually without restrictions. Outgassing takes place to a very limited extent.

Electrical Properties

iglide® T500 plain bearings are electrically conductive.

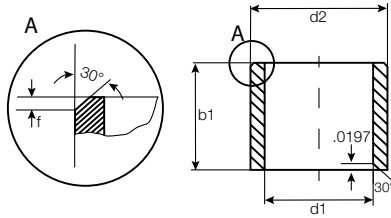
iglide® T500

Specific volume resistance	< $10^5 \Omega \text{cm}$
Surface resistance	< $10^5 \Omega$

Electrical properties of iglide® T500

iglide® T500 - Product Range

Sleeve bearing - Inch

 iglide®
T500

Order key

Type	Dimensions
T S I	-01 03-02
iglide® material	Form S (sleeve)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

 For tolerance values
please refer to page 197

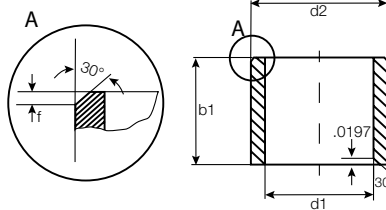
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
TSI-0203-03	1/8	3/16	3/16	.1251	.1269	.1873	.1878	.1236	.1243
TSI-0203-05	1/8	3/16	5/16			.1873	.1878	.1236	.1243
TSI-0203-06	1/8	3/16	3/8			.1873	.1878	.1236	.1243
TSI-0304-03	3/16	1/4	3/16	.1873	.1892	.2497	.2503	.1858	.1865
TSI-0304-04	3/16	1/4	1/4			.2497	.2503	.1858	.1865
TSI-0304-06	3/16	1/4	3/8			.2497	.2503	.1858	.1865
TSI-0304-08	3/16	1/4	1/2			.2497	.2503	.1858	.1865
TSI-0405-04	1/4	5/16	1/4	.2498	.2521	.3122	.3128	.2481	.2490
TSI-0405-06	1/4	5/16	3/8			.3122	.3128	.2481	.2490
TSI-0405-08	1/4	5/16	1/2			.3122	.3128	.2481	.2490
TSI-0506-04	5/16	3/8	1/4	.3125	.3148	.3747	.3753	.3106	.3115
TSI-0506-06	5/16	3/8	3/8			.3747	.3753	.3106	.3115
TSI-0506-08	5/16	3/8	1/2			.3747	.3753	.3106	.3115
TSI-0607-04	3/8	15/32	1/4	.3750	.3773	.4684	.4691	.3731	.3740
TSI-0607-05	3/8	15/32	5/16			.4684	.4691	.3731	.3740
TSI-0607-06	3/8	15/32	3/8			.4684	.4691	.3731	.3740
TSI-0607-08	3/8	15/32	1/2			.4684	.4691	.3731	.3740
TSI-0607-10	3/8	15/32	5/8			.4684	.4691	.3731	.3740
TSI-0607-12	3/8	15/32	3/4			.4684	.4691	.3731	.3740
TSI-0708-04	7/16	17/32	1/4	.4379	.4406	.5309	.5316	.4355	.4365
TSI-0708-06	7/16	17/32	3/8			.5309	.5316	.4355	.4365
TSI-0708-08	7/16	17/32	1/2			.5309	.5316	.4355	.4365
TSI-0708-10	7/16	17/32	5/8			.5309	.5316	.4355	.4365
TSI-0708-12	7/16	17/32	3/4			.5309	.5316	.4355	.4365
TSI-0709-06	7/16	9/16	3/8	.4379	.4406	.5631	.5659	.4355	.4365
TSI-0809-04	1/2	19/32	1/4	.5003	.5030	.5934	.5941	.4980	.4990
TSI-0809-06	1/2	19/32	3/8			.5934	.5941	.4980	.4990
TSI-0809-08	1/2	19/32	1/2			.5934	.5941	.4980	.4990
TSI-0809-10	1/2	19/32	5/8			.5934	.5941	.4980	.4990
TSI-0809-12	1/2	19/32	3/4			.5934	.5941	.4980	.4990
TSI-0809-16	1/2	19/32	1			.5934	.5941	.4980	.4990
TSI-0910-08	9/16	21/32	1/2	.5627	.5655	.6559	.6566	.5605	.5615
TSI-0910-12	9/16	21/32	3/4			.6559	.6566	.5605	.5615
TSI-1011-04	5/8	23/32	1/4	.6253	.6280	.7184	.7192	.6230	.6240
TSI-1011-06	5/8	23/32	3/8			.7184	.7192	.6230	.6240
TSI-1011-08	5/8	23/32	1/2			.7184	.7192	.6230	.6240
TSI-1011-10	5/8	23/32	5/8			.7184	.7192	.6230	.6240

iglide®
T500

iglide® T500 - Product Range

Sleeve bearing - Inch



Order key

Type	Dimensions
T S I	-01 03-02
iglide® material	Form S (sleeve)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

For tolerance values
please refer to page 197

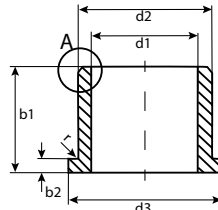
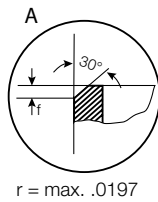
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
TSI-1011-12	5/8	23/32	3/4	.6253	.6280	.7184	.7192	.6230	.6240
TSI-1011-16	5/8	23/32	1			.7184	.7192	.6230	.6240
TSI-1112-04	11/16	25/32	1/4	.6879	.6906	.7809	.7817	.6855	.6865
TSI-1112-14	11/16	25/32	7/8			.7809	.7817	.6855	.6865
TSI-1214-06	3/4	7/8	3/8	.7507	.7541	.8747	.8755	.7479	.7491
TSI-1214-08	3/4	7/8	1/2			.8747	.8755	.7479	.7491
TSI-1214-12	3/4	7/8	3/4			.8747	.8755	.7479	.7491
TSI-1214-16	3/4	7/8	1			.8747	.8755	.7479	.7491
TSI-1416-12	7/8	1	3/4	.8757	.8791	.9997	1.0005	.8729	.8741
TSI-1416-16	7/8	1	1			.9997	1.0005	.8729	.8741
TSI-1416-24	7/8	1	1 1/2			.9997	1.0005	.8729	.8741
TSI-1618-08	1	1 1/8	1/2	1.0007	1.0041	1.1247	1.1255	.9979	.9991
TSI-1618-12	1	1 1/8	3/4			1.1247	1.1255	.9979	.9991
TSI-1618-16	1	1 1/8	1			1.1247	1.1255	.9979	.9991
TSI-1618-24	1	1 1/8	1 1/2			1.1247	1.1255	.9979	.9991
TSI-1820-12	1 1/8	1 9/32	3/4	1.1254	1.1288	1.2808	1.2818	1.1226	1.1238
TSI-2022-10	1 1/4	1 13/32	5/8	1.2508	1.2548	1.4058	1.4068	1.2472	1.2488
TSI-2022-20	1 1/4	1 13/32	1 1/4			1.4058	1.4068	1.2472	1.2488
TSI-2426-12	1 1/2	1 21/32	3/4	1.5008	1.5048	1.6558	1.6568	1.4972	1.4988
TSI-2426-16	1 1/2	1 21/32	1			1.6558	1.6568	1.4972	1.4988
TSI-2426-24	1 1/2	1 21/32	1 1/2			1.6558	1.6568	1.4972	1.4988
TSI-2629-20	1 5/8	1 13/16	1 1/4	1.6258	1.6297	1.7808	1.7818	1.6222	1.6238
TSI-2831-16	1 3/4	1 15/16	1	1.7507	1.7547	1.9371	1.9381	1.7471	1.7487
TSI-3235-24	2	2 3/16	1 1/2	2.0011	2.0057	2.1871	2.1883	1.9969	1.9981
TSI-3235-32	2	2 3/16	2			2.1871	2.1883	1.9969	1.9981
TSI-3639-32	2 1/4	2 7/16	2	2.2531	2.2577	2.4365	2.4377	2.2489	2.2507
TSI-4447-32	2 3/4	2 15/16	2	2.7523	2.7570	2.9358	2.9370	2.7490	2.7500

iglide® T500 - Product Range

Flange bearing - Inch

iglide®
T500



Order key

Type	Dimensions
T F I	-02 03-02

iglide® material	Form F (flange)	Inch	Inner-Ø d1 (inch)	Outer-Ø d2 (inch)	Length b1 (inch)
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For tolerance values
please refer to page 197

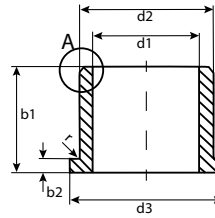
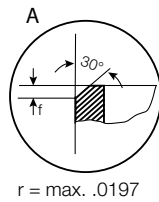
*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2 -.0055	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
TFI-0203-03	1/8	3/16	3/16	.312	.032	.1251	.1269	.1873	.1878	.1236	.1243
TFI-0203-06	1/8	3/16	3/8	.312	.032			.1873	.1878	.1236	.1243
TFI-0304-04	3/16	1/4	1/4	.375	.032	.1873	.1892	.2497	.2503	.1858	.1865
TFI-0304-06	3/16	1/4	3/8	.375	.032			.2497	.2503	.1858	.1865
TFI-0304-08	3/16	1/4	1/2	.375	.032			.2497	.2503	.1858	.1865
TFI-0405-03	1/4	5/16	3/16	.500	.032	.2498	.2521	.3122	.3128	.2481	.2490
TFI-0405-04	1/4	5/16	1/4	.500	.032			.3122	.3128	.2481	.2490
TFI-0405-06	1/4	5/16	3/8	.500	.032			.3122	.3128	.2481	.2490
TFI-0405-08	1/4	5/16	1/2	.500	.032			.3122	.3128	.2481	.2490
TFI-0405-12	1/4	5/16	3/4	.500	.032			.3122	.3128	.2481	.2490
TFI-0506-04	5/16	3/8	1/4	.562	.032	.3125	.3148	.3747	.3753	.3106	.3115
TFI-0506-06	5/16	3/8	3/8	.562	.032			.3747	.3753	.3106	.3115
TFI-0506-08	5/16	3/8	1/2	.562	.032			.3747	.3753	.3106	.3115
TFI-0607-04	3/8	15/32	1/4	.687	.046	.3750	.3773	.4684	.4691	.3731	.3740
TFI-0607-06	3/8	15/32	3/8	.687	.046			.4684	.4691	.3731	.3740
TFI-0607-08	3/8	15/32	1/2	.687	.046			.4684	.4691	.3731	.3740
TFI-0607-12	3/8	15/32	3/4	.687	.046			.4684	.4691	.3731	.3740
TFI-0708-08	7/16	17/32	1/2	.750	.046	.4379	.4406	.5309	.5316	.4355	.4365
TFI-0809-04	1/2	19/32	1/4	.875	.046	.5003	.5030	.5934	.5941	.4980	.4990
TFI-0809-06	1/2	19/32	3/8	.875	.046			.5934	.5941	.4980	.4990
TFI-0809-08	1/2	19/32	1/2	.875	.046			.5934	.5941	.4980	.4990
TFI-0809-12	1/2	19/32	3/4	.875	.046			.5934	.5941	.4980	.4990
TFI-0809-16	1/2	19/32	1	.875	.046			.5934	.5941	.4980	.4990
TFI-1011-08	5/8	23/32	1/2	.937	.046	.6253	.6280	.7184	.7192	.6230	.6240
TFI-1011-12	5/8	23/32	3/4	.937	.046			.7184	.7192	.6230	.6240
TFI-1011-16	5/8	23/32	1	.937	.046			.7184	.7192	.6230	.6240
TFI-1011-24	5/8	23/32	1 1/2	.937	.046			.7184	.7192	.6230	.6240
TFI-1214-08	3/4	7/8	1/2	1.125	.062	.7507	.7541	.8747	.8755	.7479	.7491
TFI-1214-12	3/4	7/8	3/4	1.125	.062			.8747	.8755	.7479	.7491
TFI-1214-16	3/4	7/8	1	1.125	.062			.8747	.8755	.7479	.7491
TFI-1214-28	3/4	7/8	1 3/4	1.125	.062			.8747	.8755	.7479	.7491
TFI-1416-12	7/8	1	3/4	1.250	.062	.8757	.8791	.9997	1.0005	.8729	.8741
TFI-1416-16	7/8	1	1	1.250	.062			.9997	1.0005	.8729	.8741
TFI-1618-08	1	1 1/8	1/2	1.375	.062	1.0007	1.0041	1.1247	1.1255	.9979	.9991
TFI-1618-12	1	1 1/8	3/4	1.375	.062			1.1247	1.1255	.9979	.9991
TFI-1618-16	1	1 1/8	1	1.375	.062			1.1247	1.1255	.9979	.9991
TFI-1618-24	1	1 1/8	1 1/2	1.375	.062			1.1247	1.1255	.9979	.9991

iglide®
T500

iglide® T500 - Product Range

Flange bearing - Inch


 For tolerance values
please refer to page 197

Order key

Type	Dimensions
T F I	-02 03-02
iglide® material	Form F (flange)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

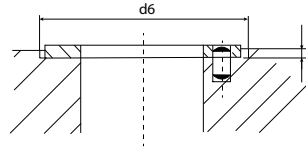
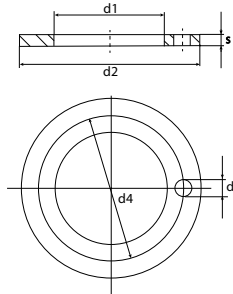
*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2 -.0055	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
TFI-1719-06	1 1/16	1 3/16	3/8	1.500	.062	1.0633	1.0666	1.1875	1.1883	1.0604	1.0616
TFI-1820-12	1 1/8	1 9/32	3/4	1.562	.078	1.1254	1.1288	1.2808	1.2818	1.1226	1.1238
TFI-2022-20	1 1/4	1 13/32	1 1/4	1.687	.078	1.2508	1.2548	1.4058	1.4068	1.2472	1.2488
TFI-2022-32	1 1/4	1 13/32	2	1.687	.078			1.4058	1.4068	1.2472	1.2488
TFI-2426-12	1 1/2	1 21/32	3/4	2.000	.078	1.5008	1.5048	1.6558	1.6568	1.4972	1.4988
TFI-2426-16	1 1/2	1 21/32	1	2.000	.078			1.6558	1.6568	1.4972	1.4988
TFI-2426-24	1 1/2	1 21/32	1 1/2	2.000	.078			1.6558	1.6568	1.4972	1.4988
TFI-2831-16	1 3/4	1 15/16	1	2.375	.093	1.7507	1.7547	1.9371	1.9381	1.7471	1.7487
TFI-3235-32	2	2 3/16	2	2.625	.093	2.0011	2.0057	2.1871	2.1883	1.9969	1.9981
TFI-4447-32	2 3/4	2 15/16	2	3.375	.093	2.7523	2.7570	2.9358	2.9370	2.7490	2.7500

iglide® T500 - Product Range

Thrust washer - Inch

iglide®
T500



Order key

Type

Dimensions

T T I -06 20-015

iglide® material

Form T (washer)

Inch

Inner-Ø d1 (inch)

Outer-Ø d2 (inch)

Thickness s (inch)

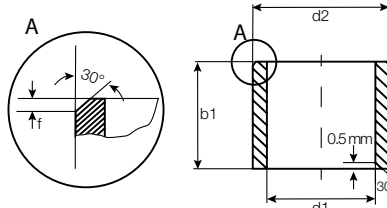
Part Number	d1 +.010	d2 -.010	s -.0020	d4 +-.005	d5 +.015 +.005	h +.008	d6 +.005
TTI-0814-01	.500	.875	.0585	.692	.067	.040	.875
TTI-1018-01	.625	1.125	.0585	.880	.099	.040	1.125
TTI-1220-01	.750	1.250	.0585	1.005	.099	.040	1.250
TTI-1422-01	.875	1.375	.0585	1.125	.130	.040	1.375
TTI-1424-01	.875	1.500	.0585	1.192	.130	.040	1.500
TTI-1628-01	1.000	1.750	.0585	1.380	.130	.040	1.750
TTI-1826-01	1.125	1.625	.0585	**	**	.040	1.625
TTI-2034-01	1.250	2.125	.0585	1.692	.161	.040	2.125
TTI-2844-01	1.750	2.750	.0585	2.255	.192	.040	2.750
TTI-3248-01	2.000	3.000	.0895	2.505	.192	.070	3.000

** Designed without fixing bore

iglide®
T500

iglide® T500 - Product Range

Sleeve bearing - Metric


Order key

Type	Dimensions
T S M -01 03-02	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
please refer to page 197

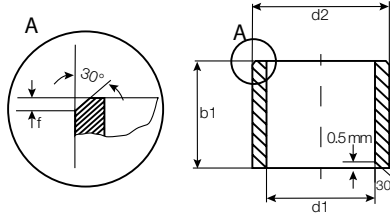
Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
TSM-0203-03	2.0	3.5	3.0	2.006	2.046	3.500	3.580	1.975	2.000
TSM-0304-03	3.0	4.5	3.0	3.006	3.046	4.500	4.512	2.975	3.000
TSM-0304-06	3.0	4.5	6.0			4.500	4.512	2.975	3.000
TSM-0405-04	4.0	5.5	4.0	4.010	4.058	5.500	5.512	3.970	4.000
TSM-0405-06	4.0	5.5	6.0			5.500	5.512	3.970	4.000
TSM-0405-10	4.0	5.5	10.0			5.500	5.512	3.970	4.000
TSM-0507-035	5.0	7.0	3.5	5.010	5.058	7.000	7.015	4.970	5.000
TSM-0507-05	5.0	7.0	5.0			7.000	7.015	4.970	5.000
TSM-0507-08	5.0	7.0	8.0			7.000	7.015	4.970	5.000
TSM-0507-10	5.0	7.0	10.0			7.000	7.015	4.970	5.000
TSM-0608-06	6.0	8.0	6.0	6.010	6.058	8.000	8.015	5.970	6.000
TSM-0608-08	6.0	8.0	8.0			8.000	8.015	5.970	6.000
TSM-0608-10	6.0	8.0	10.0			8.000	8.015	5.970	6.000
TSM-0608-13	6.0	8.0	13.0			8.000	8.015	5.970	6.000
TSM-0610-08	6.0	10.0	8.0	6.010	6.058	10.000	10.015	5.970	6.000
TSM-0610-20	6.0	10.0	20.0			10.000	10.015	5.970	6.000
TSM-0709-10	7.0	9.0	10.0	7.013	7.071	9.000	9.015	6.964	7.000
TSM-0709-12	7.0	9.0	12.0			9.000	9.015	6.964	7.000
TSM-0810-06	8.0	10.0	6.0	8.013	8.071	10.000	10.015	7.984	8.000
TSM-0810-08	8.0	10.0	8.0			10.000	10.015	7.964	8.000
TSM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
TSM-0810-12	8.0	10.0	12.0			10.000	10.015	7.964	8.000
TSM-0810-15	8.0	10.0	15.0			10.000	10.015	7.964	8.000
TSM-1012-035	10.0	12.0	3.5	10.013	10.071	12.000	12.018	9.964	10.000
TSM-1012-06	10.0	12.0	6.0			12.000	12.018	9.964	10.000
TSM-1012-08	10.0	12.0	8.0			12.000	12.018	9.964	10.000
TSM-1012-10	10.0	12.0	10.0			12.000	12.018	9.964	10.000
TSM-1012-12	10.0	12.0	12.0			12.000	12.018	9.964	10.000
TSM-1012-15	10.0	12.0	15.0			12.000	12.018	9.964	10.000
TSM-1012-20	10.0	12.0	20.0			12.000	12.018	9.964	10.000
TSM-1214-035	12.0	14.0	3.5	12.016	12.086	14.000	14.018	11.957	12.000
TSM-1214-06	12.0	14.0	6.0			14.000	14.018	11.957	12.000
TSM-1214-08	12.0	14.0	8.0			14.000	14.018	11.957	12.000
TSM-1214-10	12.0	14.0	10.0			14.000	14.018	11.957	12.000
TSM-1214-12	12.0	14.0	12.0			14.000	14.018	11.957	12.000
TSM-1214-15	12.0	14.0	15.0			14.000	14.018	11.957	12.000
TSM-1214-20	12.0	14.0	20.0			14.000	14.018	11.957	12.000

iglide® T500 - Product Range

Sleeve bearing - Metric

 iglide®
T500

Order key

Type	Dimensions
T S M	-01 03-02

iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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 For tolerance values
please refer to page 197

Dimensions according to ISO 3547-1 and special dimensions

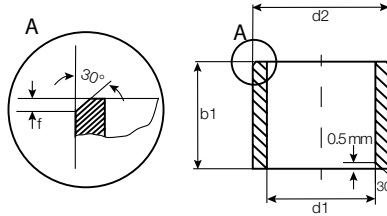
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
TSM-1315-10	13.0	15.0	10.0	13.016	13.086	15.000	15.018	12.957	13.000
TSM-1315-20	13.0	15.0	20.0			15.000	15.018	12.957	13.000
TSM-1416-12	14.0	16.0	12.0	14.016	14.086	16.000	16.018	13.957	14.000
TSM-1416-15	14.0	16.0	15.0			16.000	16.018	13.957	14.000
TSM-1416-20	14.0	16.0	20.0			16.000	16.018	13.957	14.000
TSM-1416-25	14.0	16.0	25.0			16.000	16.018	13.957	14.000
TSM-1517-07	15.0	17.0	7.0	15.016	15.086	17.000	17.018	14.957	15.000
TSM-1517-10	15.0	17.0	10.0			17.000	17.018	14.957	15.000
TSM-1517-15	15.0	17.0	15.0			17.000	17.018	14.957	15.000
TSM-1517-20	15.0	17.0	20.0			17.000	17.018	14.957	15.000
TSM-1517-25	15.0	17.0	25.0			17.000	17.018	14.957	15.000
TSM-1618-10	16.0	18.0	10.0			16.016	16.086	18.000	18.018
TSM-1618-12	16.0	18.0	12.0	18.000	18.018			15.957	16.000
TSM-1618-15	16.0	18.0	15.0	18.000	18.018			15.957	16.000
TSM-1618-20	16.0	18.0	20.0	18.000	18.018			15.957	16.000
TSM-1618-25	16.0	18.0	25.0	18.000	18.018			15.957	16.000
TSM-1618-35	16.0	18.0	35.0	18.000	18.018			15.957	16.000
TSM-1719-20	17.0	19.0	20.0	17.016	17.086	19.000	19.021	16.957	17.000
TSM-1820-15	18.0	20.0	15.0	18.016	18.086	20.000	20.021	17.957	18.000
TSM-1820-20	18.0	20.0	20.0			20.000	20.021	17.957	18.000
TSM-1820-25	18.0	20.0	25.0			20.000	20.021	17.957	18.000
TSM-2022-14	20.0	22.0	14.0	20.020	20.104	22.000	22.021	19.948	20.000
TSM-2022-14.5	20.0	22.0	14.5			22.000	22.021	19.948	20.000
TSM-2022-18	20.0	22.0	18.0			22.000	22.021	19.948	20.000
TSM-2022-20	20.0	22.0	20.0			22.000	22.021	19.948	20.000
TSM-2023-07	20.0	23.0	7.0	20.020	20.104	23.000	23.021	19.948	20.000
TSM-2023-10	20.0	23.0	10.0			23.000	23.021	19.948	20.000
TSM-2023-15	20.0	23.0	15.0			23.000	23.021	19.948	20.000
TSM-2023-20	20.0	23.0	20.0			23.000	23.021	19.948	20.000
TSM-2023-25	20.0	23.0	25.0			23.000	23.021	19.948	20.000
TSM-2023-30	20.0	23.0	30.0			23.000	23.021	19.948	20.000
TSM-2225-15	22.0	25.0	15.0			22.020	22.104	25.000	25.021
TSM-2225-20	22.0	25.0	20.0	25.000	25.021			21.948	22.000
TSM-2225-25	22.0	25.0	25.0	25.000	25.021			21.948	22.000
TSM-2225-30	22.0	25.0	30.0	25.000	25.021			21.948	22.000
TSM-2426-20	24.0	26.0	20.0	26.000	26.021			23.948	24.000
TSM-2427-15	24.0	27.0	15.0	24.020	24.104			27.000	27.021

iglide®
T500

iglide® T500 - Product Range

Sleeve bearing - Metric


Order key

Type	Dimensions
T S M -01 03-02	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
please refer to page 197

Dimensions according to ISO 3547-1 and special dimensions

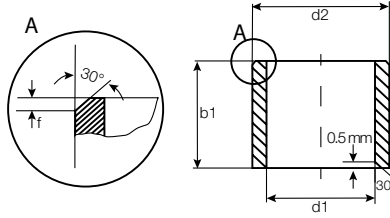
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
TSM-2427-20	24.0	27.0	20.0	24.020	24.104	27.000	27.021	23.948	24.000
TSM-2427-25	24.0	27.0	25.0			27.000	27.021	23.948	24.000
TSM-2427-30	24.0	27.0	30.0			27.000	27.021	23.948	24.000
TSM-2528-077	25.0	28.0	7.7	25.020	25.104	28.000	28.021	24.948	25.000
TSM-2528-09	25.0	28.0	9.0			28.000	28.021	24.948	25.000
TSM-2528-12	25.0	28.0	12.0			28.000	28.021	24.948	25.000
TSM-2528-13	25.0	28.0	13.0			28.000	28.021	24.948	25.000
TSM-2528-15	25.0	28.0	15.0			28.000	28.021	24.948	25.000
TSM-2528-20	25.0	28.0	20.0			28.000	28.021	24.948	25.000
TSM-2528-25	25.0	28.0	25.0			28.000	28.021	24.948	25.000
TSM-2528-30	25.0	28.0	30.0			28.000	28.021	24.948	25.000
TSM-2730-05	27.0	30.0	5.7	27.020	27.104	30.000	30.021	26.948	27.000
TSM-2832-20	28.0	32.0	20.0	28.020	28.104	32.000	32.025	27.948	28.000
TSM-2832-25	28.0	32.0	25.0			32.000	32.025	27.948	28.000
TSM-2832-30	28.0	32.0	30.0			32.000	32.025	27.948	28.000
TSM-2832-69	28.0	32.0	69.0			32.000	32.025	27.948	28.000
TSM-3034-15	30.0	34.0	15.0	30.020	30.104	34.000	34.025	29.948	30.000
TSM-3034-20	30.0	34.0	20.0			34.000	34.025	29.948	30.000
TSM-3034-25	30.0	34.0	25.0			34.000	34.025	29.948	30.000
TSM-3034-30	30.0	34.0	30.0			34.000	34.025	29.948	30.000
TSM-3034-40	30.0	34.0	40.0			34.000	34.025	29.948	30.000
TSM-3236-20	32.0	36.0	20.0	32.025	32.125	36.000	36.025	31.938	32.000
TSM-3236-25	32.0	36.0	25.0			36.000	36.025	31.938	32.000
TSM-3236-30	32.0	36.0	30.0			36.000	36.025	31.938	32.000
TSM-3236-35	32.0	36.0	35.0			36.000	36.025	31.938	32.000
TSM-3236-40	32.0	36.0	40.0			36.000	36.025	31.938	32.000
TSM-3539-20	35.0	39.0	20.0	35.025	35.125	39.000	39.025	34.938	35.000
TSM-3539-30	35.0	39.0	30.0			39.000	39.025	34.938	35.000
TSM-3539-40	35.0	39.0	40.0			39.000	39.025	34.938	35.000
TSM-3539-50	35.0	39.0	50.0			39.000	39.025	34.938	35.000
TSM-4044-20	40.0	44.0	20.0	40.025	40.125	44.000	44.025	39.938	40.000
TSM-4044-30	40.0	44.0	30.0			44.000	44.025	39.938	40.000
TSM-4044-40	40.0	44.0	40.0			44.000	44.025	39.938	40.000
TSM-4044-50	40.0	44.0	50.0			44.000	44.025	39.938	40.000
TSM-4550-20	45.0	50.0	20.0	45.025	45.125	50.000	50.025	44.938	45.000
TSM-4550-30	45.0	50.0	30.0			50.000	50.025	44.938	45.000
TSM-4550-40	45.0	50.0	40.0			50.000	50.025	44.938	45.000

iglide® T500 - Product Range

Sleeve bearing - Metric

iglide®
T500



Order key

Type		Dimensions		
T	S	M	-01	03-02
iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)
				Length b1 (mm)

For tolerance values
please refer to page 197

Dimensions according to ISO 3547-1 and special dimensions

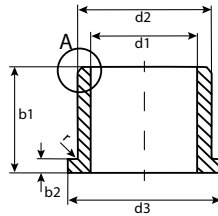
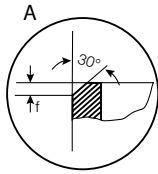
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
TSM-4550-50	45.0	50.0	50.0	45.025	45.125	50.000	50.025	44.938	45.000
TSM-5055-20	50.0	55.0	20.0	50.025	50.125	55.000	55.030	49.938	50.000
TSM-5055-30	50.0	55.0	30.0			55.000	55.030	49.938	50.000
TSM-5055-40	50.0	55.0	40.0			55.000	55.030	49.938	50.000
TSM-5055-50	50.0	55.0	50.0			55.000	55.030	49.938	50.000
TSM-5055-60	50.0	55.0	60.0			55.000	55.030	49.938	50.000
TSM-5560-50	55.0	60.0	50.0	55.030	55.150	60.000	60.030	54.926	55.000
TSM-6065-45	60.0	65.0	45.0	60.030	60.150	65.000	65.030	59.926	60.000
TSM-6065-60	60.0	65.0	60.0			65.000	65.030	59.926	60.000
TSM-6570-50	65.0	70.0	50.0	65.030	65.150	70.000	70.030	64.926	65.000
TSM-7075-70	70.0	75.0	70.0	70.030	70.150	75.000	75.030	69.926	70.000

iglide®
T500

iglide® T500 - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
T F M -01 03-02	
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 $r = \max. 0.5$

 For tolerance values
please refer to page 197

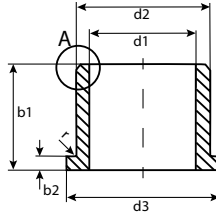
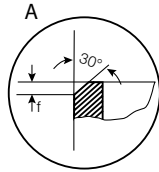
Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3 d13	b1 h13	b2 -0.14	I.D. After Pressfit*		Housing Bore		Shaft Size			
						Min.	Max.	Min.	Max.	Min.	Max.		
TFM-020406-03	2.0	4.0	6.0	3.0	1.0	2.006	2.046	4.000	4.012	1.975	2.000		
TFM-0304-05	3.0	4.5	7.5	5.0	0.75	3.006	3.046	4.500	4.512	2.975	3.000		
TFM-0405-04	4.0	5.5	9.5	4.0	0.75	4.010	4.058	5.500	5.512	3.970	4.000		
TFM-0405-06	4.0	5.5	9.5	6.0	0.75			5.500	5.512	3.970	4.000		
TFM-040508-06	4.0	5.5	8.0	6.0	0.75			5.500	5.512	3.970	4.000		
TFM-0507-05	5.0	7.0	11.0	5.0	1.0	5.010	5.058	7.000	7.015	4.970	5.000		
TFM-0608-04	6.0	8.0	12.0	4.0	1.0	6.010	6.058	8.000	8.015	5.970	6.000		
TFM-0608-08	6.0	8.0	12.0	8.0	1.0			8.000	8.015	5.970	6.000		
TFM-0608-10	6.0	8.0	12.0	10.0	1.0			8.000	8.015	5.970	6.000		
TFM-060812-10	6.0	8.0	12.0	10.0	1.0			8.000	8.015	5.970	6.000		
TFM-060812-20	6.0	8.0	12.0	20.0	1.0			8.000	8.015	5.970	6.000		
TFM-081012-04	8.0	10.0	12.0	4.0	1.0	8.013	8.071	10.000	10.015	7.964	8.000		
TFM-0810-05	8.0	10.0	15.0	5.0	1.0			10.000	10.015	7.964	8.000		
TFM-0810-075	8.0	10.0	15.0	7.5	1.0			10.000	10.015	7.964	8.000		
TFM-0810-08	8.0	10.0	15.0	8.0	1.0			10.000	10.015	7.964	8.000		
TFM-0810-09	8.0	10.0	15.0	9.5	1.0			10.000	10.015	7.964	8.000		
TFM-081117-05	8.0	11.0	17.0	5.0	1.5			8.013	8.071	11.000	11.015	7.964	8.000
TFM-1012-05	10.0	12.0	18.0	5.0	1.0	10.013	10.071	12.000	12.018	9.964	10.000		
TFM-1012-06	10.0	12.0	18.0	6.0	1.0			12.000	12.018	9.964	10.000		
TFM-1012-07	10.0	12.0	18.0	7.0	1.0			12.000	12.018	9.964	10.000		
TFM-1012-08	10.0	12.0	15.0	8.0	1.0			12.000	12.018	9.964	10.000		
TFM-1012-09	10.0	12.0	18.0	9.0	1.0			12.000	12.018	9.964	10.000		
TFM-1012-12	10.0	12.0	18.0	12.0	1.0			12.000	12.018	9.964	10.000		
TFM-1012-15	10.0	12.0	18.0	15.0	1.0			12.000	12.018	9.964	10.000		
TFM-1012-17	10.0	12.0	18.0	17.0	1.0			12.000	12.018	9.964	10.000		
TFM-1012-18	10.0	12.0	18.0	18.0	1.0			12.000	12.018	9.964	10.000		
TFM-1012-22	10.0	12.0	18.0	22.0	1.0			12.000	12.018	9.964	10.000		
TFM-1214-05	12.0	14.0	20.0	5.5	1.0	12.016	12.086	14.000	14.018	11.957	12.000		
TFM-1214-09	12.0	14.0	20.0	9.0	1.0			14.000	14.018	11.957	12.000		
TFM-1214-12	12.0	14.0	20.0	12.0	1.0			14.000	14.018	11.957	12.000		
TFM-1214-15	12.0	14.0	20.0	15.0	1.0			14.000	14.018	11.957	12.000		
TFM-1214-17	12.0	14.0	20.0	17.0	1.0			14.000	14.018	11.957	12.000		
TFM-121418-039	12.0	14.0	18.0	3.9	1.0			14.000	14.018	11.957	12.000		
TFM-121418-059	12.0	14.0	18.0	5.9	1.0			14.000	14.018	11.957	12.000		
TFM-1416-10	14.0	16.0	22.0	10.0	1.0			14.016	14.086	16.000	16.018	13.957	14.000
TFM-1416-12	14.0	16.0	22.0	12.0	1.0					16.000	16.018	13.957	14.000
TFM-1416-17	14.0	16.0	22.0	17.0	1.0					16.000	16.018	13.957	14.000

iglide® T500 - Product Range

Flange bearing - Metric

 iglide®
T500

Order key

Type	Dimensions
T F M	-01 03-02

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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 $r = \max. 0.5$

 For tolerance values
please refer to page 197

Dimensions according to ISO 3547-1 and special dimensions

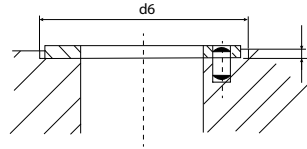
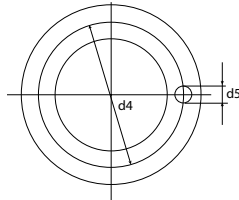
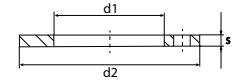
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
TFM-1517-06	15.0	17.0	23.0	6.0	1.0	15.016	15.086	17.000	17.018	14.957	15.000
TFM-1517-09	15.0	17.0	23.0	9.0	1.0			17.000	17.018	14.957	15.000
TFM-1517-12	15.0	17.0	23.0	12.0	1.0			17.000	17.018	14.957	15.000
TFM-1517-17	15.0	17.0	23.0	17.0	1.0			17.000	17.018	14.957	15.000
TFM-1618-12	16.0	18.0	24.0	12.0	1.0	16.016	16.086	18.000	18.018	15.957	16.000
TFM-1618-17	16.0	18.0	24.0	17.0	1.0			18.000	18.018	15.957	16.000
TFM-1820-12	18.0	20.0	26.0	12.0	1.0	18.016	18.086	20.000	20.021	17.957	18.000
TFM-1820-17	18.0	20.0	26.0	17.0	1.0			20.000	20.021	17.957	18.000
TFM-1820-22	18.0	20.0	26.0	22.0	1.0			20.000	20.021	17.957	18.000
TFM-2023-065	20.0	23.0	30.0	6.5	1.5	20.020	20.104	23.000	23.021	19.948	20.000
TFM-2023-075	20.0	23.0	30.0	7.5	1.5			23.000	23.021	19.948	20.000
TFM-2023-11	20.0	23.0	30.0	11.5	1.5			23.000	23.021	19.948	20.000
TFM-2023-16	20.0	23.0	30.0	16.0	1.5			23.000	23.021	19.948	20.000
TFM-2023-21	20.0	23.0	30.0	21.0	1.5			23.000	23.021	19.948	20.000
TFM-252833-08	25.0	28.0	33.0	8.0	1.5	25.020	25.104	28.000	28.021	24.948	25.000
TFM-2528-11	25.0	28.0	35.0	11.5	1.5			28.000	28.021	24.948	25.000
TFM-2528-13	25.0	28.0	35.0	13.5	1.5			28.000	28.021	24.948	25.000
TFM-2528-16	25.0	28.0	35.0	16.5	1.5			28.000	28.021	24.948	25.000
TFM-2528-21	25.0	28.0	35.0	21.5	1.5			28.000	28.021	24.948	25.000
TFM-2730-20	27.0	30.0	38.0	20.0	1.5	27.020	27.104	30.000	30.021	26.948	27.000
TFM-2834-44	28.0	34.0	42.0	44.0	2.0	28.020	28.104	34.000	34.021	27.948	28.000
TFM-3034-16	30.0	34.0	42.0	16.0	2.0	30.020	30.104	34.000	34.025	29.948	30.000
TFM-3034-26	30.0	34.0	42.0	26.0	2.0			34.000	34.025	29.948	30.000
TFM-3034-40	30.0	34.0	42.0	40.0	2.0			34.000	34.025	29.948	30.000
TFM-3236-15	32.0	36.0	45.0	15.0	2.0	32.025	32.125	36.000	36.025	31.938	32.000
TFM-3236-26	32.0	36.0	45.0	26.0	2.0			36.000	36.025	31.938	32.000
TFM-3539-16	35.0	39.0	47.0	16.0	2.0	35.025	35.125	39.000	39.025	34.938	35.000
TFM-3539-26	35.0	39.0	47.0	26.0	2.0			39.000	39.025	34.938	35.000
TFM-4044-22	40.0	44.0	52.0	22.0	2.0	40.025	40.125	44.000	44.025	39.938	40.000
TFM-4044-30	40.0	44.0	52.0	30.0	2.0			44.000	44.025	39.938	40.000
TFM-4044-40	40.0	44.0	52.0	40.0	2.0			44.000	44.025	39.938	40.000
TFM-4550-50	45.0	50.0	58.0	50.0	2.0	45.025	45.125	50.000	50.025	44.938	45.000
TFM-5055-40	50.0	55.0	63.0	40.0	2.0	50.025	50.125	55.000	55.030	49.938	50.000
TFM-6065-40	60.0	65.0	73.0	40.0	2.0	60.030	60.150	65.000	65.030	59.926	60.000
TFM-7075-40	70.0	75.0	83.0	40.0	2.0	70.030	70.150	75.000	75.030	69.926	70.000
TFM-7580-50	75.0	80.0	88.0	50.0	2.0	75.030	75.150	80.000	80.030	74.926	75.000

iglide®
T500

iglide® T500 - Product Range

Thrust washer - Metric


Order key

Type

Dimensions

T T M-06 20-015

iglide® material

Form T (washer)

Metric

Inner-Ø d1 (mm)

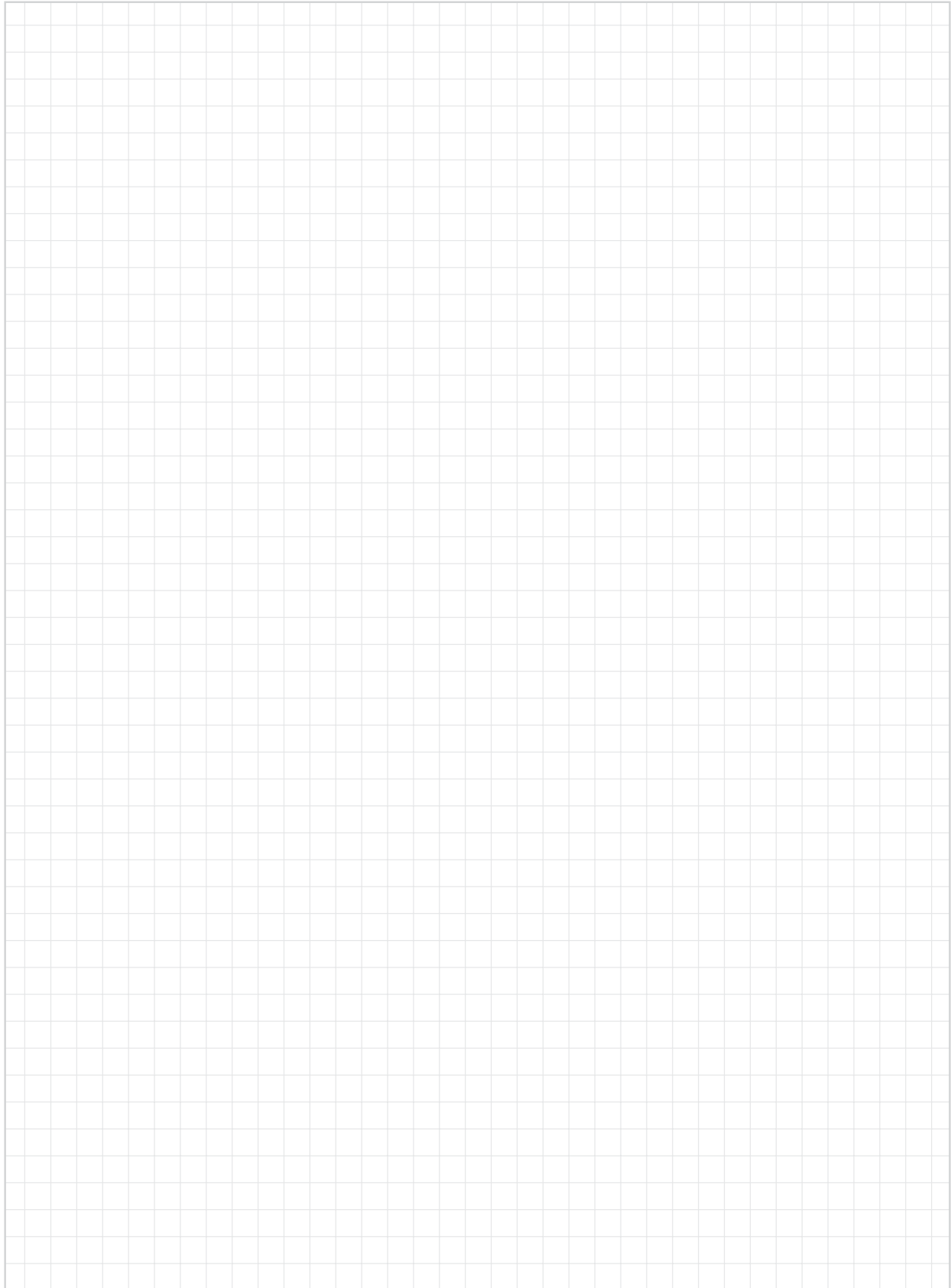
Outer-Ø d2 (mm)

Thickness s (mm)

Part Number	d1 +0.25	d2 -0.25	s -0.05	d4 -0.12 +0.12	d5 +0.375 +0.125	h +0.2 -0.2	d6 +0.12
TTM-0620-015	6.0	20.0	1.5	13.0	1.5	1.0	20.0
TTM-0818-015	8.0	18.0	1.5	13.0	1.5	1.0	18.0
TTM-0829-015	8.0	29.0	1.5	**	**	1.0	29.0
TTM-0830-015	8.0	30.0	1.5	**	**	1.0	30.0
TTM-1018-010	10.0	18.0	1.0	**	**	.7	18.0
TTM-1224-015	12.0	24.0	1.5	18.0	1.5	1.0	24.0
TTM-1426-015	14.0	26.0	1.5	20.0	2.0	1.0	26.0
TTM-1524-015	15.0	24.0	1.5	19.5	1.5	1.0	24.0
TTM-1630-015	16.0	30.0	1.5	22.0	2.0	1.0	30.0
TTM-1832-015	18.0	32.0	1.5	25.0	2.0	1.0	32.0
TTM-2036-015	20.0	36.0	1.5	28.0	3.0	1.0	36.0
TTM-2238-015	22.0	38.0	1.5	30.0	3.0	1.0	38.0
TTM-2442-015	24.0	42.0	1.5	33.0	3.0	1.0	42.0
TTM-2644-015	26.0	44.0	1.5	35.0	3.0	1.0	44.0
TTM-2848-015	28.0	48.0	1.5	38.0	4.0	1.0	48.0
TTM-3254-015	32.0	54.0	1.5	43.0	4.0	1.0	54.0
TTM-3862-015	38.0	62.0	1.5	50.0	4.0	1.0	62.0
TTM-4266-015	42.0	66.0	1.5	84.0	4.0	1.0	66.0
TTM-4874-020	48.0	74.0	2.0	61.0	4.0	1.5	74.0
TTM-5278-020	52.0	78.0	2.0	65.0	4.0	1.5	78.0
TTM-6290-020	62.0	90.0	2.0	76.0	4.0	1.5	90.0

** Designed without fixing bore

Notes



iglide® Bearings - Advantages



Low water absorption –
iglide® P
► Page 217



High wear resistance in pivoting motions –
iglide® P210
► Page 231



Versatile –
iglide® K
► Page 241



Low-cost material for high quantities –
iglide® GLW
► Page 247

General purpose

The iglide® materials are summarized in this group, have a universal use under normal conditions (temperature, media, etc.).

iglide® GLW is a low-cost solution for applications with large quantities.

iglide® P and iglide® K have a similar potential as iglide® G300 paired with significantly reduced moisture absorption, which is advantageous for use in wet environments.

- Self-lubricating and maintenance-free
- Lightweight
- Good price/performance ratio
- Predictable service life



Online product finder
► www.igus.com/iglide-finder



max. +338 °F
min. –40 °F



4 materials



Ø 1/4 to 2 inches
more dimensions on request



Ø 3 to 95 mm
more dimensions on request

iglide® Bearings - Application examples

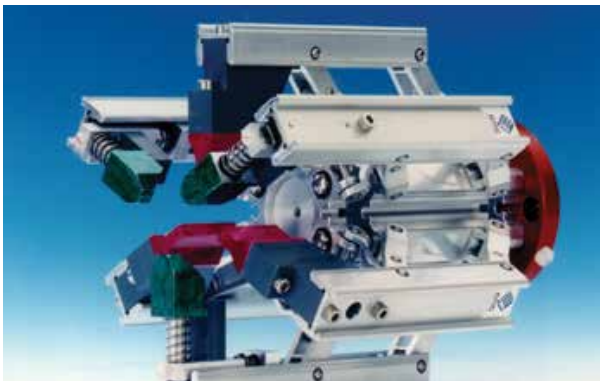
General Purpose



iglide® plastic bearings are a practical and low priced alternative to bronze, metallic, rolled and injection-molded plain bearings in this boat lift application.



An external load system for helicopters required a low weight, high reliability with simultaneous weather resistance and freedom from maintenance.



Thanks to the excellent mechanical and gliding properties of the bearings, the maintenance-free and lubrication free mechanical hand can be moved by hand.



The self-lubricating iglide® bearings are used, among other things, to eliminate the potential of contamination by external lubricants.



The special feature here is the economical plastic bearings, which serve as rear axle bearing in the housing and allows the sensors to last considerably longer.



Thanks to the noise-dampening properties of the plastic bearings, they contribute to a much quieter operation.

iglide® Bearings - Selection Guide - Main Properties

General Purpose



Standard
catalog
range



Bar
stock



speedigus®
material



Long life
in dry
operation



For high
loads



Dirt
resistant



Low
coefficient
of friction



Chemical
resistant

	Standard catalog range	Bar stock	speedigus® material	Long life in dry operation	For high loads	Dirt resistant	Low coefficient of friction	Chemical resistant
iglide® P	●		●	●		●		
iglide® P210	●	●		●		●		
iglide® K	●			●			●	
iglide® GLW						●		



Low water
absorption



For under
water use



Edge
pressure



Vibrations
dampening



Food
suitable



Temperatures
up to
+212°F



Temperatures
up to
+302°F

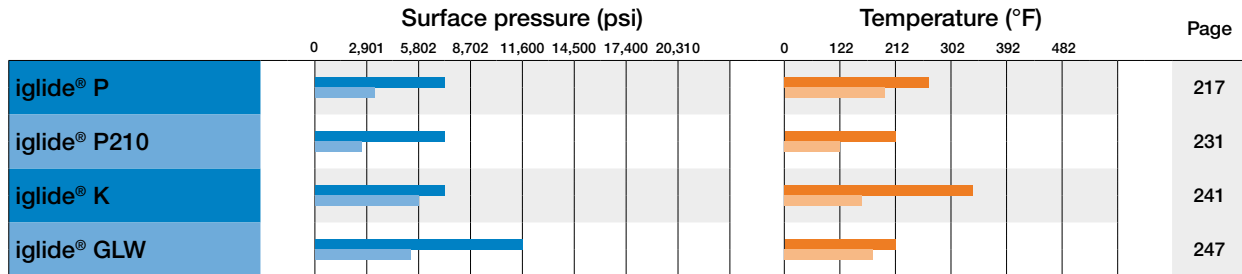


Economical

	Low water absorption	For under water use	Edge pressure	Vibrations dampening	Food suitable	Temperatures up to +212°F	Temperatures up to +302°F	Economical
iglide® P	●					●		
iglide® P210	●		●			●		●
iglide® K	●					●	●	●
iglide® GLW						●		●

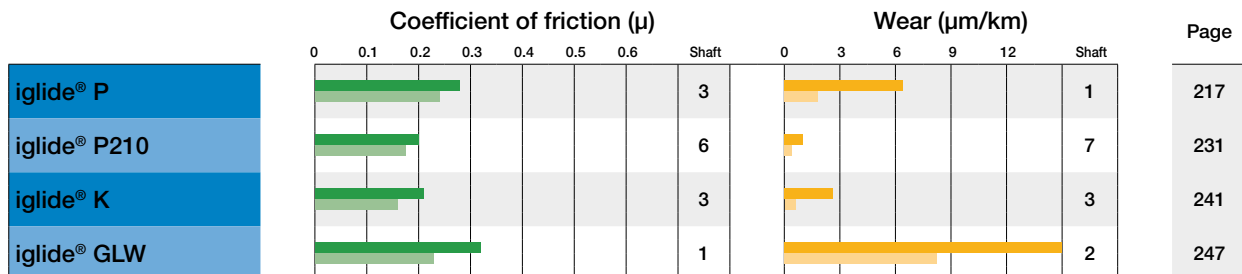
iglide® Bearings - Selection Guide - Main Properties

General Purpose



Maximum permissible surface pressure of iglide® bearings at
 ■ +68°F
 ■ +176°F

Important temperature limits of iglide® bearings
 ■ Maximum permissible application temperature, continuous
 ■ Temperature where bearings need to be secured against radial or axial movement in the housing



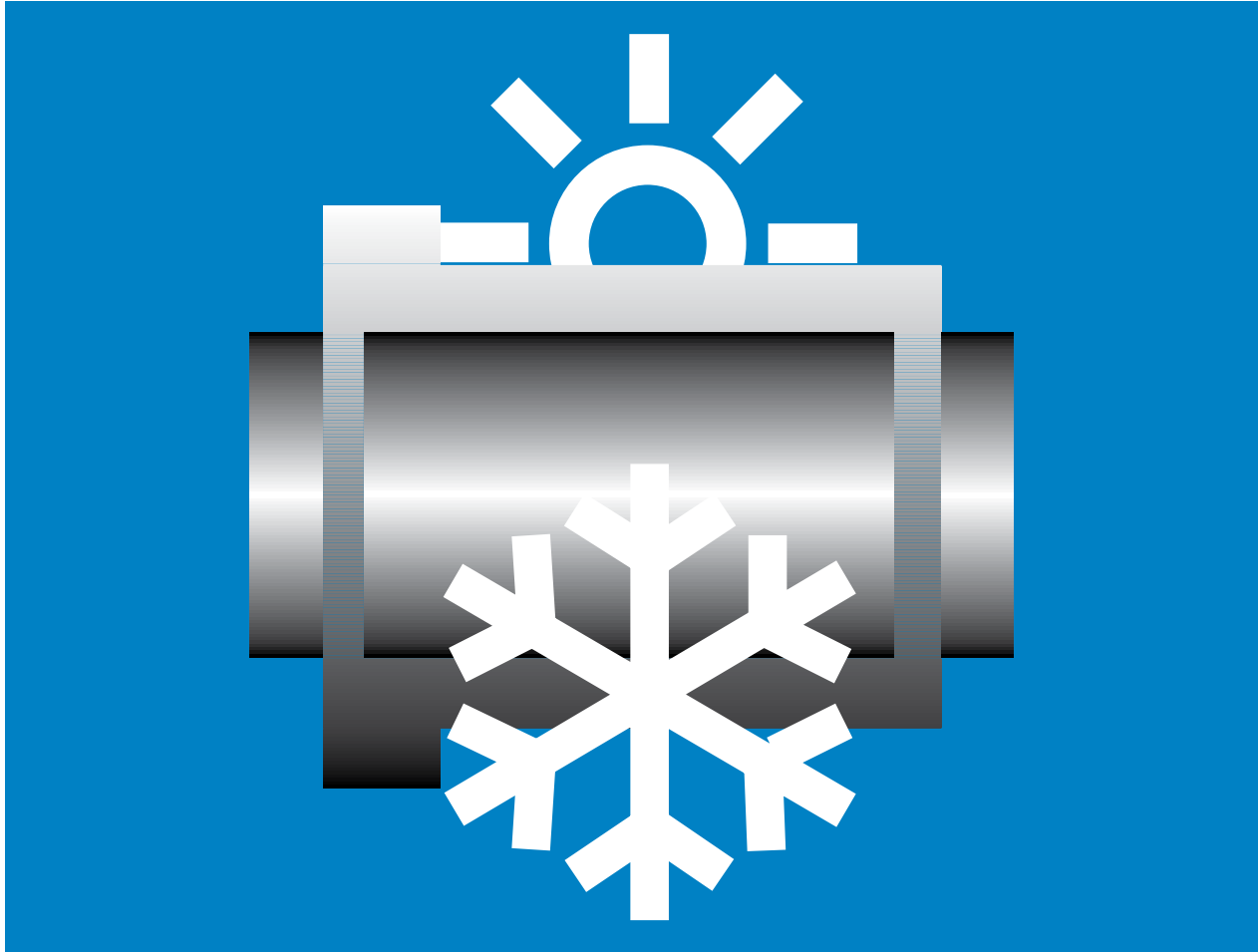
Coefficients of friction of iglide® bearings against steel rotating, p = 145 psi v = 59 fpm
 ■ Average of all the seven sliding combinations tested
 ■ Coefficient of friction of best combination

Wear of iglide® bearings against steel rotating, p = 145 psi
 ■ Average of all the seven sliding combinations tested
 ■ Wear of best combination



Shaft material:

1 = 1050, case hardened	4 = Free-cutting steel	7 = 440B Stainless
2 = 1050, case hardened steel, chromed	5 = Machinery Steel	
3 = Hard anodized aluminum	6 = 304 Stainless	



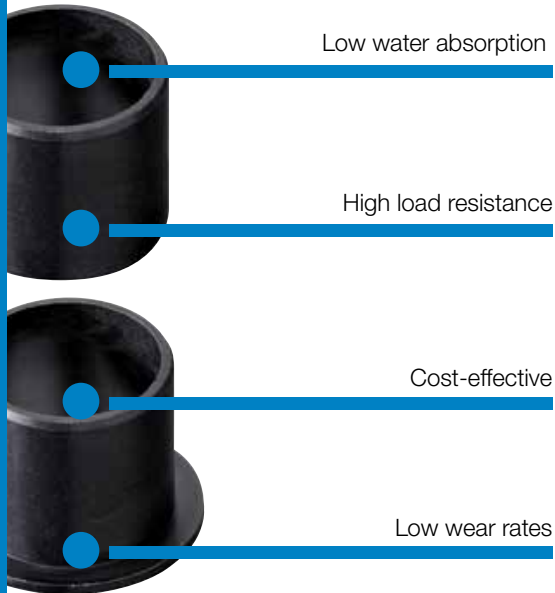
iglide® P

- Low water absorption
- Low wear rates
- High load capacity
- Cost-effective

iglide®
P

iglide® P - Low water absorption

Cost-effective



Due to thermal stability and low water absorption, the iglide® P bearings are among the most dimensionally stable general purpose bearings under varying environmental conditions. iglide® P bearings are recommended for oscillating



- When very low water absorption is needed
- When a cost-effective bearing for high pressure loads is required
- When high precision in high humidity and moderately high temperatures are needed



- When the maximum application temperature is above +248°F
➤ iglide® K
- When mechanical reaming of the wall surface is necessary
➤ iglide® M250
- When the highest wear resistance is needed
➤ iglide® L280



Available from stock

Detailed information about delivery time online.



max. +266°F
min. -40°F



Price breaks online

No minimum order.



Ø 1/4 to 2 inches
more dimensions on request



Typical application areas

- Solar Technology
- Sports and leisure
- Machine building
- Doors and gates
- Railway industry



Ø 3 to 95 mm
more dimensions on request



iglide® P - Technical Data

 iglide®
P

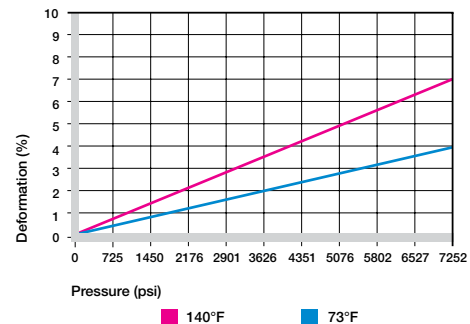
Material Properties Table

General Properties	Unit	iglide® P	Testing Method
Density	g/cm ³	1.58	
Color		black	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.2	DIN 53495
Max. moisture absorption	% weight	0.4	
Coefficient of friction, dynamic against steel	μ	0.06 - 0.21	
pv value, max. (dry)	psi x fpm	11,000	
Mechanical Properties			
Modulus of elasticity	psi	768,700	DIN 53457
Tensile strength at 68°F	psi	17,400	DIN 53452
Compressive strength	psi	9,572	
Permissible static surface pressure (68°F)	psi	7,252	
Shore D-hardness		75	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	266	
Max. application temperature, short-term	°F	392	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.25	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	4	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹³	DIN IEC 93
Surface resistance	Ω	> 10 ¹²	DIN 53482

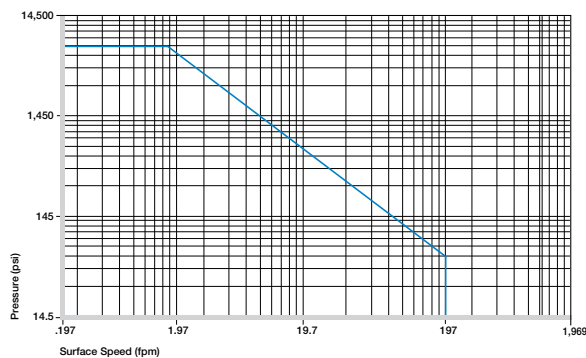
Compressive Strength

The graph shows the elastic deformation of iglide® P for radial loads. At the maximum permissible load of 5,075 psi, the deformation is less than 3% at room temperature.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv value for iglide® P running dry against a steel shaft, at 68°F

Permissible Surface Speeds

Plain bearings made from iglide® P are maintenance-free plain bearings, which were developed for low to average surface speeds.

The maximum values given in the table can only be achieved at a very low surface pressure. The maximum speed given is the speed at which an increase up to the continuous use temperature occurs due to friction.

► Surface speed, Page 64

► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	196	393
Oscillating	137	275
Linear	590	787

Maximum surface speeds

Temperatures

Even at its highest long-term application temperature of 266°F, iglide® P does not quite reach the values of iglide® G300. With a maximum permissible short-term temperature of 392°F, a heat treating process is possible, without additional loading.

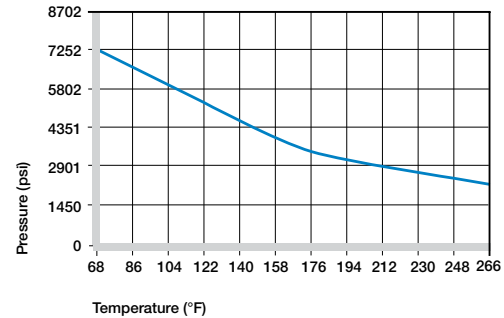
With increasing temperatures, the compressive strength of iglide® P plain bearings decreases.

The ambient temperatures in the bearing system also have an effect on the bearing wear. With increasing temperatures, the wear increases.

► Application temperatures, Page 67

iglide® P	Application Temperature
Minimum	- 40°F
Max. long-term	+266°F
Max. short-term	+392°F
Additional axial securing	+194°F

Temperature limits for iglide® P



Recommended maximum permissible static surface pressure of iglide® P as a result of the temperature

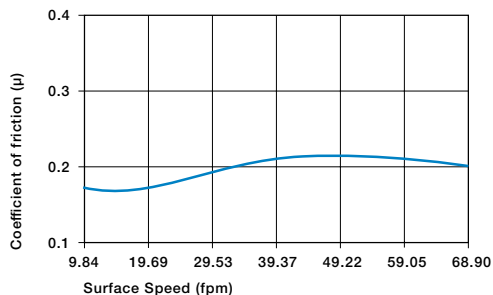
Friction and Wear

Similar to wear resistance, the coefficient of friction changes greatly with increasing load. For iglide® P the coefficient of friction increases slightly when the speed increases. The graph shown at the upper right shows how the coefficient of friction drops when the load increases. Starting at approximately 870 psi, the coefficient of friction is already below 0.1.

For iglide® P a ground surface with an average roughness range of 4-8 rms is recommended for the shaft. Both smoother and rougher shaft finishes cause the friction to clearly increase.

► Coefficients of friction and surfaces, Page 68

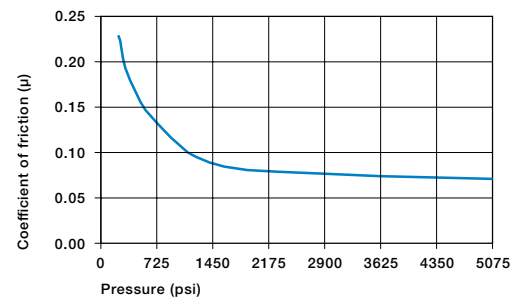
► Wear resistance, Page 69



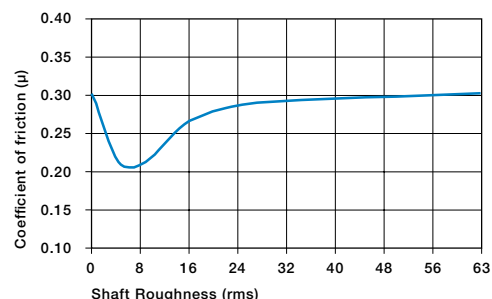
Coefficients of friction of iglide® P as a result of the surface speed; p = 108 psi

iglide® P	Coefficient of Friction
Dry	0.06 - 0.21
Grease	0.09
Oil	0.04
Water	0.04

Coefficients of friction for iglide® P against steel
(Shaft finish = 40 rms, 50 HRC)



Coefficients of friction of iglide® P as a result of the load, v = 1.97 fpm



Coefficients of friction of iglide® P as a result of the shaft surface (shaft 1050 case hardened and ground steel)

iglide® P - Technical Data

iglide®
P

Shaft Materials

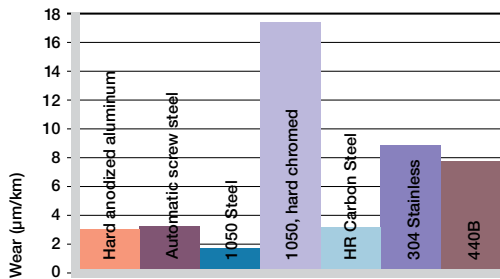
The graphs show results of testing different shaft materials with plain bearings made of iglide® P.

For rotating movements, the wear of iglide® P with Cold Rolled Steel and HR Carbon Steel shafts is very low. On the other hand, the bearings on 303 Stainless Steel shafts as well as hard-chromed shafts result in higher wear than other shaft materials even in the low load range. For example at a load of 290 psi, Cold Rolled Steel is six times better than 303 Stainless Steel.

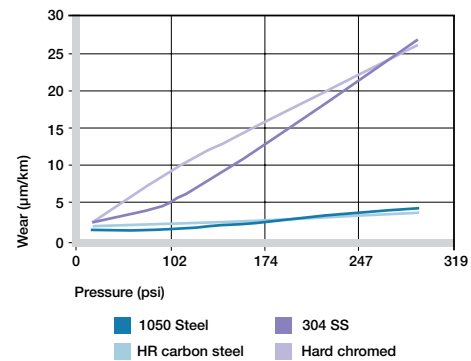
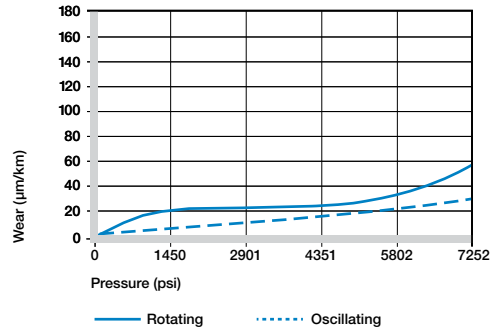
For oscillating movements without loads, wear rates are lower than for most rotating movements. For this purpose, the Cold Rolled Steel and hard-chromed shafts prove to be the best sliding partners. Also, the 303 Stainless Steel shafts that have poor results for rotation, are very good in oscillating operation.

If the shaft material you plan to use is not contained in this list, please contact us.

► Shaft Materials, Page 71



Wear of iglide® P with different shaft materials in rotating applications, p=108 psi, v=98 fpm

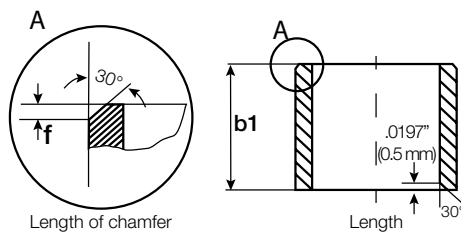


Wear of iglide® P with different shaft materials in rotating applications

Installation Tolerances

iglide® P plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

- Tolerance table, Page 75
- Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance

iglide® P plain bearings are resistant to most chemicals. They are resistant to most lubricants. iglide® P is not attacked by most weak organic and inorganic acids.

The moisture absorption of iglide® P plain bearings is approximately 0.2% in standard atmosphere. The saturation limit in water is 0.4%. This low moisture absorption is clearly below the values of iglide® G300.

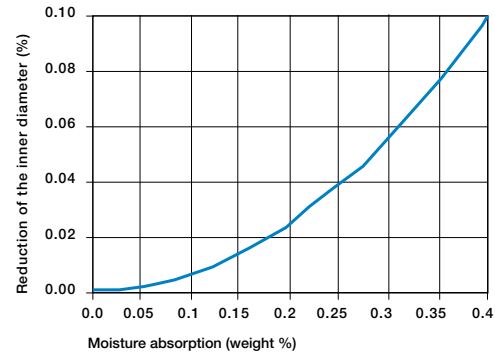
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	-
Greases, oils without additives	+
Fuels	+
Weak acids	0
Strong acids	-
Weak alkaline	-
Strong alkaline	-

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® P

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® P plain bearings

Radiation Resistance

Plain bearings made of iglide® P have limited use under radioactive radiation. They are resistant to radiation up to an intensity of 5×10^2 Gy.

UV-Resistance

iglide® P plain bearings are partially UV resistance.

Vacuum

In a vacuum environment, existing moisture of iglide® P plain bearings is released as a vapor. Use in a vacuum is only possible in a limited manner.

Electrical Properties

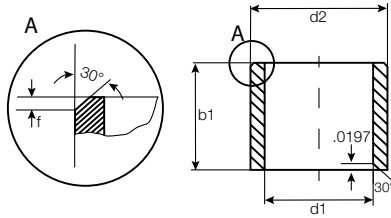
iglide® P plain bearings are electrically insulating.

iglide® P	
Specific volume resistance	> 10^{13} Ωcm
Surface resistance	> 10^{12} Ω

Electrical properties of iglide® P

iglide® P - Product range

Sleeve bearing - Inch

 iglide®
P

Order key

Type		Dimensions		
P	S	I	-04	05-04
iglide® material	Form S (sleeve)	Inch	Inner-Ø d1 (inch)	Outer-Ø d2 (inch)
			Length b1 (inch)	

 For tolerance values
please refer to page 221

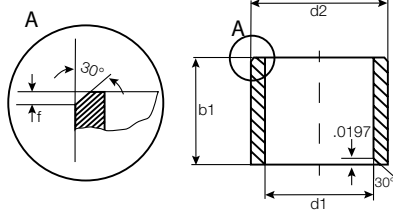
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
PSI-0405-06	1/4	5/16	3/8	.2498	.2521	.3122	.3128	.2481	.2490
PSI-0405-08	1/4	5/16	1/2			.3122	.3128	.2481	.2490
PSI-0506-04	5/16	3/8	1/4	.3125	.3148	.3747	.3753	.3106	.3115
PSI-0506-06	5/16	3/8	3/8			.3747	.3753	.3106	.3115
PSI-0506-08	5/16	3/8	1/2			.3747	.3753	.3106	.3115
PSI-0506-12	5/16	3/8	3/4			.3747	.3753	.3106	.3115
PSI-0607-04	3/8	15/32	1/4	.3750	.3773	.4684	.4691	.3731	.3740
PSI-0607-06	3/8	15/32	3/8			.4684	.4691	.3731	.3740
PSI-0607-08	3/8	15/32	1/2			.4684	.4691	.3731	.3740
PSI-0607-12	3/8	15/32	3/4			.4684	.4691	.3731	.3740
PSI-0608-08	3/8	1/2	1/2	.3760	.3783	.5010	.5015	.3741	.3750
PSI-0809-06	1/2	19/32	3/8	.5003	.5030	.5934	.5941	.4980	.4990
PSI-0809-08	1/2	19/32	1/2			.5934	.5941	.4980	.4990
PSI-0809-10	1/2	19/32	5/8			.5934	.5941	.4980	.4990
PSI-0809-12	1/2	19/32	3/4			.5934	.5941	.4980	.4990
PSI-0809-16	1/2	19/32	1			.5934	.5941	.4980	.4990
PSI-1011-08	5/8	23/32	1/2	.6253	.6280	.7184	.7192	.6230	.6240
PSI-1011-10	5/8	23/32	5/8			.7184	.7192	.6230	.6240
PSI-1011-12	5/8	23/32	3/4			.7184	.7192	.6230	.6240
PSI-1011-16	5/8	23/32	1			.7184	.7192	.6230	.6240
PSI-1214-06	3/4	7/8	3/8	.7507	.7541	.8747	.8755	.7479	.7491
PSI-1214-08	3/4	7/8	1/2			.8747	.8755	.7479	.7491
PSI-1214-12	3/4	7/8	3/4			.8747	.8755	.7479	.7491
PSI-1214-16	3/4	7/8	1			.8747	.8755	.7479	.7491
PSI-1416-08	7/8	1	1/2	.8757	.8791	.9997	1.0050	.8729	.8741
PSI-1416-12	7/8	1	3/4			.9997	1.0050	.8729	.8741
PSI-1416-16	7/8	1	1			.9997	1.0050	.8729	.8741
PSI-1618-08	1	1 1/8	1/2	1.0007	1.0041	1.1247	1.1255	.9979	.9991
PSI-1618-12	1	1 1/8	3/4			1.1247	1.1255	.9979	.9991
PSI-1618-16	1	1 1/8	1			1.1247	1.1255	.9979	.9991
PSI-1618-24	1	1 1/8	1 1/2			1.1247	1.1255	.9979	.9991
PSI-2022-20	1 1/4	1 13/32	1	1.2508	1.2548	1.4058	1.4068	1.2472	1.2488
PSI-2022-24	1 1/4	1 13/32	1 1/2			1.4058	1.4068	1.2472	1.2488
PSI-2224-20	1 3/8	1 17/32	1 1/4	1.3758	1.3798	1.5308	1.5318	1.3722	1.3738
PSI-2224-24	1 3/8	1 17/32	1 1/2			1.5308	1.5318	1.3722	1.3738
Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.

iglide®
P

iglide® P - Product range

Sleeve bearing - Inch



Order key

Type	Dimensions
P S I -04 05-04	
iglide® material	Inner-Ø d1 (inch)
Form S (sleeve)	Outer-Ø d2 (inch)
Inch	Length b1 (inch)

For tolerance values
please refer to page 221

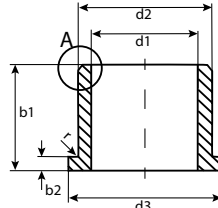
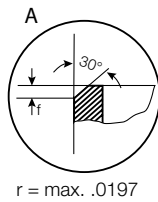
*Based on steel housing bore

PSI-2426-24	1 1/2	1 21/32	1 1/2	1.5008	1.5048	1.6558	1.6568	1.4972	1.4988
PSI-2426-32	1 1/2	1 21/32	2			1.6558	1.6568	1.4972	1.4988
PSI-3235-16	2	2 3/16	1	2.0011	2.0052	2.1871	2.1883	1.9969	1.9981
PSI-3235-32	2	2 3/16	2			2.1871	2.1883	1.9969	1.9981

iglide® P - Product range

Flange bearing - Inch

iglide®
P



Order key

Type	Dimensions
P F I	-04 05-04
iglide® material	
Form F (flange)	
Inch	
Inner-Ø d1 (inch)	
Outer-Ø d2 (inch)	
Length b1 (inch)	

For tolerance values
please refer to page 221

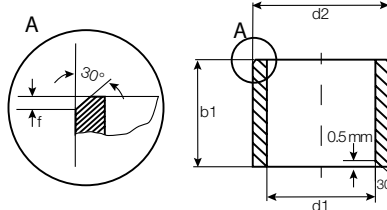
*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2 -.0055	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
PFI-0405-04	1/4	5/16	1/4	.500	.032	.2498	.2521	.3122	.3128	.2481	.2490
PFI-0405-05	1/4	5/16	5/16	.500	.032			.3122	.3128	.2481	.2490
PFI-0405-06	1/4	5/16	3/8	.500	.032			.3122	.3128	.2481	.2490
PFI-0405-08	1/4	5/16	1/2	.500	.032			.3122	.3128	.2481	.2490
PFI-0405-12	1/4	5/16	3/4	.500	.032			.3122	.3128	.2481	.2490
PFI-0506-04	5/16	3/8	1/4	.562	.032	.3125	.3148	.3747	.3753	.3106	.3115
PFI-0506-06	5/16	3/8	3/8	.562	.032			.3747	.3753	.3106	.3115
PFI-0506-08	5/16	3/8	1/2	.562	.032			.3747	.3753	.3106	.3115
PFI-0506-12	5/16	3/8	3/4	.562	.032			.3747	.3753	.3106	.3115
PFI-0607-04	3/8	15/32	1/4	.687	.046	.3750	.3773	.4684	.4691	.3731	.3740
PFI-0607-06	3/8	15/32	3/8	.687	.046			.4684	.4691	.3731	.3740
PFI-0607-08	3/8	15/32	1/2	.687	.046			.4684	.4691	.3731	.3740
PFI-0607-12	3/8	15/32	3/4	.687	.046			.4684	.4691	.3731	.3740
PFI-0809-06	1/2	19/32	3/8	.875	.046	.5003	.5030	.5934	.5941	.4980	.4990
PFI-0809-08	1/2	19/32	1/2	.875	.046			.5934	.5941	.4980	.4990
PFI-0809-10	1/2	19/32	5/8	.875	.046			.5934	.5941	.4980	.4990
PFI-0809-12	1/2	19/32	3/4	.875	.046			.5934	.5941	.4980	.4990
PFI-0809-16	1/2	19/32	1	.875	.046			.5934	.5941	.4980	.4990
PFI-0810-10	1/2	5/8	5/8	.875	.062	.5013	.5040	.6250	.6257	.4983	.5000
PFI-1011-06	5/8	23/32	3/8	.937	.046	.6253	.6280	.7184	.7192	.6230	.6240
PFI-1011-08	5/8	23/32	1/2	.937	.046			.7184	.7192	.6230	.6240
PFI-1011-12	5/8	23/32	3/4	.937	.046			.7184	.7192	.6230	.6240
PFI-1011-16	5/8	23/32	1	.937	.046			.7184	.7192	.6230	.6240
PFI-1214-08	3/4	7/8	1/2	1.125	.062	.7507	.7541	.8747	.8755	.7479	.7491
PFI-1214-12	3/4	7/8	3/4	1.125	.062			.8747	.8755	.7479	.7491
PFI-1214-16	3/4	7/8	1	1.125	.062			.8747	.8755	.7479	.7491
PFI-1416-08	7/8	1	1/2	1.250	.062	.8757	.8791	.9997	1.0005	.8729	.8741
PFI-1416-12	7/8	1	3/4	1.250	.062			.9997	1.0005	.8729	.8741
PFI-1416-16	7/8	1	1	1.250	.062			.9997	1.0005	.8729	.8741
PFI-1618-08	1	1 1/8	1/2	1.375	.062	1.0007	1.0041	1.1247	1.1255	.9979	.9991
PFI-1618-12	1	1 1/8	3/4	1.375	.062			1.1247	1.1255	.9979	.9991
PFI-1618-16	1	1 1/8	1	1.375	.062			1.1247	1.1255	.9979	.9991
PFI-1618-24	1	1 1/8	1 1/2	1.375	.062			1.1247	1.1255	.9979	.9991
PFI-2224-16	1 3/8	1 1/2	1	1.875	.078	1.3758	1.3798	1.5308	1.5318	1.3722	1.3738
PFI-2426-20	1 1/2	1 21/32	1 1/4	2.000	.078	1.5008	1.5408	1.6558	1.6568	1.4972	1.4988
PFI-2426-24	1 1/2	1 21/32	1 1/2	2.000	.078			1.6558	1.6568	1.4972	1.4988

iglide®
P

iglide® P - Product range

Sleeve bearing - Metric


Order key

Type	Dimensions
P S M -04 05 -04	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
please refer to page 221

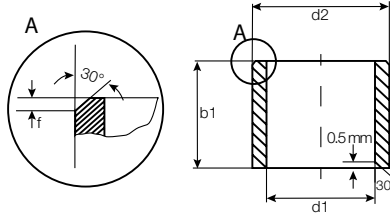
Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
PSM-0304-03	3.0	4.5	3.0	3.014	3.054	4.500	4.512	2.975	3.000
PSM-0304-05	3.0	4.5	5.0			4.500	4.512	2.975	3.000
PSM-0304-06	3.0	4.5	6.0			4.500	4.512	2.975	3.000
PSM-0405-04	4.0	5.5	4.0	4.020	4.068	5.500	5.512	3.970	4.000
PSM-0405-06	4.0	5.5	6.0			5.500	5.512	3.970	4.000
PSM-0507-05	5.0	7.0	5.0	5.020	5.068	7.000	7.015	4.970	5.000
PSM-0507-06	5.0	7.0	6.0			7.000	7.015	4.970	5.000
PSM-0507-08	5.0	7.0	8.0			7.000	7.015	4.970	5.000
PSM-0507-10	5.0	7.0	10.0			7.000	7.015	4.970	5.000
PSM-0608-06	6.0	8.0	6.0	6.020	6.068	8.000	8.015	5.970	6.000
PSM-0608-08	6.0	8.0	8.0			8.000	8.015	5.970	6.000
PSM-0608-10	6.0	8.0	10.0			8.000	8.015	5.970	6.000
PSM-0810-08	8.0	10.0	8.0	8.025	8.083	10.000	10.015	7.964	8.000
PSM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
PSM-0810-11	8.0	10.0	11.0			10.000	10.015	7.964	8.000
PSM-0810-12	8.0	10.0	12.0			10.000	10.015	7.964	8.000
PSM-1012-08	10.0	12.0	8.0	10.025	10.083	12.000	12.018	9.964	10.000
PSM-1012-10	10.0	12.0	10.0			12.000	12.018	9.964	10.000
PSM-1012-12	10.0	12.0	12.0			12.000	12.018	9.964	10.000
PSM-1012-15	10.0	12.0	15.0			12.000	12.018	9.964	10.000
PSM-1012-20	10.0	12.0	20.0			12.000	12.018	9.964	10.000
PSM-1214-10	12.0	14.0	10.0	12.032	12.102	14.000	14.018	11.957	12.000
PSM-1214-12	12.0	14.0	12.0			14.000	14.018	11.957	12.000
PSM-1214-15	12.0	14.0	15.0			14.000	14.018	11.957	12.000
PSM-1214-20	12.0	14.0	20.0			14.000	14.018	11.957	12.000
PSM-1214-25	12.0	14.0	25.0			14.000	14.018	11.957	12.000
PSM-1315-10	13.0	15.0	10.0	13.032	13.102	15.000	15.018	12.957	13.000
PSM-1315-20	13.0	15.0	20.0			15.000	15.018	12.957	13.000
PSM-1416-15	14.0	16.0	15.0	14.032	14.102	16.000	16.018	13.957	14.000
PSM-1416-20	14.0	16.0	20.0			16.000	16.018	13.957	14.000
PSM-1416-25	14.0	16.0	25.0			16.000	16.018	13.957	14.000
PSM-1517-15	15.0	17.0	15.0	15.032	15.102	17.000	17.018	14.957	15.000
PSM-1517-20	15.0	17.0	20.0			17.000	17.018	14.957	15.000
PSM-1517-25	15.0	17.0	25.0			17.000	17.018	14.957	15.000
PSM-1618-10	16.0	18.0	10.0	16.032	16.102	18.000	18.018	15.957	16.000
PSM-1618-12	16.0	18.0	12.0			18.000	18.018	15.957	16.000
PSM-1618-15	16.0	18.0	15.0			18.000	18.018	15.957	16.000

iglide® P - Product range

Sleeve bearing - Metric

 iglide®
P

Order key

Type	Dimensions
P S M	-04 05-04
iglide® material	Form S (sleeve)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

 For tolerance values
please refer to page 221

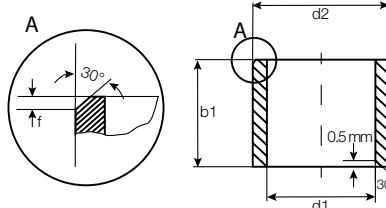
 Dimensions according to ISO 3547-1 and special dimensions
 *Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
PSM-1618-20	16.0	18.0	20.0	16.032	16.102	18.000	18.018	15.957	16.000
PSM-1618-25	16.0	18.0	25.0			18.000	18.018	15.957	16.000
PSM-1618-42	16.0	18.0	42.0			18.000	18.018	15.957	16.000
PSM-1820-15	18.0	20.0	15.0	18.032	18.102	20.000	20.021	17.957	18.000
PSM-1820-20	18.0	20.0	20.0			20.000	20.021	17.957	18.000
PSM-1820-25	18.0	20.0	25.0			20.000	20.021	17.957	18.000
PSM-1820-33	18.0	20.0	33.0			20.000	20.021	17.957	18.000
PSM-2022-22	20.0	22.0	22.0	20.040	20.124	22.000	22.021	19.948	20.000
PSM-2022-30	20.0	22.0	30.0			22.000	22.021	19.948	20.000
PSM-2022-48	20.0	22.0	48.0			22.000	22.021	19.948	20.000
PSM-2022-51	20.0	22.0	51.0			22.000	22.021	19.948	20.000
PSM-2023-10	20.0	23.0	10.0			20.040	20.124	23.000	23.021
PSM-2023-15	20.0	23.0	15.0	23.000	23.021			19.948	20.000
PSM-2023-20	20.0	23.0	20.0	23.000	23.021			19.948	20.000
PSM-2023-25	20.0	23.0	25.0	23.000	23.021			19.948	20.000
PSM-2023-30	20.0	23.0	30.0	23.000	23.021			19.948	20.000
PSM-2224-42	22.0	24.0	42.0	22.040	22.124			24.000	24.021
PSM-2224-45	22.0	24.0	45.0			24.000	24.021	21.948	22.000
PSM-2225-15	22.0	25.0	15.0	22.040	22.124	25.000	25.021	21.948	22.000
PSM-2225-20	22.0	25.0	20.0			25.000	25.021	21.948	22.000
PSM-2225-25	22.0	25.0	25.0			25.000	25.021	21.948	22.000
PSM-2225-30	22.0	25.0	30.0			25.000	25.021	21.948	22.000
PSM-2225-45	22.0	25.0	45.0			25.000	25.021	21.948	22.000
PSM-2325-37	23.0	25.0	37.0			23.040	23.124	25.000	25.021
PSM-2427-15	24.0	27.0	15.0	24.040	24.124	27.000	27.021	23.948	24.000
PSM-2427-20	24.0	27.0	20.0			27.000	27.021	23.948	24.000
PSM-2427-25	24.0	27.0	25.0			27.000	27.021	23.948	24.000
PSM-2427-30	24.0	27.0	30.0			27.000	27.021	23.948	24.000
PSM-2528-15	25.0	28.0	15.0	25.040	25.124	28.000	28.021	24.948	25.000
PSM-2528-20	25.0	28.0	20.0			28.000	28.021	24.948	25.000
PSM-2528-25	25.0	28.0	25.0			28.000	28.021	24.948	25.000
PSM-2528-30	25.0	28.0	30.0			28.000	28.021	24.948	25.000
PSM-2528-35	25.0	28.0	35.0			28.000	28.021	24.948	25.000
PSM-2630-25	26.0	30.0	25.0			26.040	26.124	30.000	30.021
PSM-2832-20	28.0	32.0	20.0	28.040	28.124	32.000	32.025	27.948	28.000
PSM-2832-25	28.0	32.0	25.0			32.000	32.025	27.948	28.000
PSM-3034-20	30.0	34.0	20.0	30.040	30.124	34.000	34.025	29.948	30.000

iglide®
P

iglide® P - Product range

Sleeve bearing - Metric


Order key

Type	Dimensions
P S M -04 05 -04	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
 please refer to page 221

Dimensions according to ISO 3547-1 and special dimensions

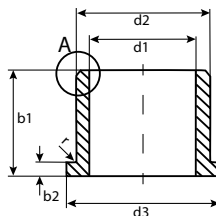
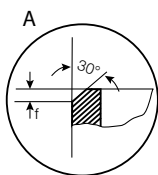
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
PSM-3034-25	30.0	34.0	25.0	30.040	30.124	34.000	34.025	29.948	30.000
PSM-3034-30	30.0	34.0	30.0			34.000	34.025	29.948	30.000
PSM-3034-40	30.0	34.0	40.0			34.000	34.025	29.948	30.000
PSM-3034-45	30.0	34.0	45.0			34.000	34.025	29.948	30.000
PSM-3236-20	32.0	36.0	20.0	32.050	32.150	36.000	36.025	31.938	32.000
PSM-3236-30	32.0	36.0	30.0			36.000	36.025	31.938	32.000
PSM-3236-40	32.0	36.0	40.0			36.000	36.025	31.938	32.000
PSM-3539-20	35.0	39.0	20.0	35.050	35.150	39.000	39.025	34.938	35.000
PSM-3539-30	35.0	39.0	30.0			39.000	39.025	34.938	35.000
PSM-3539-40	35.0	39.0	40.0			39.000	39.025	34.938	35.000
PSM-3539-50	35.0	39.0	50.0			39.000	39.025	34.938	35.000
PSM-4044-20	40.0	44.0	20.0	40.050	40.150	44.000	44.025	39.938	40.000
PSM-4044-30	40.0	44.0	30.0			44.000	44.025	39.938	40.000
PSM-4044-40	40.0	44.0	40.0			44.000	44.025	39.938	40.000
PSM-4044-50	40.0	44.0	50.0			44.000	44.025	39.938	40.000
PSM-4044-58	40.0	44.0	58.0			44.000	44.025	39.938	40.000
PSM-4550-20	45.0	50.0	20.0	45.050	45.150	50.000	50.025	44.938	45.000
PSM-4550-30	45.0	50.0	30.0			50.000	50.025	44.938	45.000
PSM-4550-40	45.0	50.0	40.0			50.000	50.025	44.938	45.000
PSM-4550-50	45.0	50.0	50.0			50.000	50.025	44.938	45.000
PSM-5055-20	50.0	55.0	20.0	50.050	50.150	55.000	55.030	49.938	50.000
PSM-5055-30	50.0	55.0	30.0			55.000	55.030	49.938	50.000
PSM-5055-40	50.0	55.0	40.0			55.000	55.030	49.938	50.000
PSM-5055-50	50.0	55.0	50.0			55.000	55.030	49.938	50.000
PSM-5055-60	50.0	55.0	60.0			55.000	55.030	49.938	50.000
PSM-6065-60	60.0	65.0	60.0			60.060	60.180	65.000	65.030
PSM-7580-80	75.0	80.0	80.0	75.060	75.180	80.000	80.030	74.926	75.000
PSM-9095-100	90.0	95.0	100.0	90.072	90.212	95.000	95.035	89.913	90.000
PSM-95100-100	95.0	100.0	100.0	95.072	95.212	100.000	100.035	95.913	95.000

iglide® P - Product range

Flange bearing - Metric

iglide®
P



Order key

Type: P F M -04 05-04

iglide® material
Form F (flange)
Metric
Inner-Ø d1 (mm)
Outer-Ø d2 (mm)
Length b1 (mm)

r = max. 0.5

For tolerance values please refer to page 221

Dimensions according to ISO 3547-1 and special dimensions

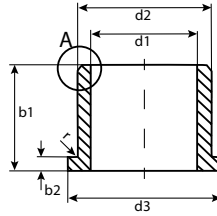
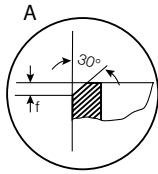
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
PFM-0405-04	4.0	5.5	9.5	4.0	0.75	4.020	4.068	5.500	5.512	3.970	4.000
PFM-0507-05	5.0	7.0	11.0	5.0	1.0	5.020	5.068	7.000	7.015	4.970	5.000
PFM-0608-04	6.0	8.0	12.0	4.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
PFM-0608-08	6.0	8.0	12.0	8.0	1.0			8.000	8.015	5.970	6.000
PFM-0810-05	8.0	10.0	15.0	5.5	1.0	8.025	8.083	10.000	10.015	7.964	8.000
PFM-0810-07	8.0	10.0	15.0	7.5	1.0			10.000	10.015	7.964	8.000
PFM-0810-09	8.0	10.0	15.0	9.5	1.0			10.000	10.015	7.964	8.000
PFM-0810-10	8.0	10.0	15.0	10.0	1.0			10.000	10.015	7.964	8.000
PFM-081012-10	8.0	10.0	12.0	10.0	1.0			10.000	10.015	7.964	8.000
PFM-0810-15	8.0	10.0	15.0	15.0	1.0			10.000	10.015	9.964	10.000
PFM-1012-07	10.0	12.0	18.0	7.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
PFM-1012-09	10.0	12.0	18.0	9.0	1.0			12.000	12.018	9.964	10.000
PFM-1012-12	10.0	12.0	18.0	12.0	1.0			12.000	12.018	9.964	10.000
PFM-1012-17	10.0	12.0	18.0	17.0	1.0			12.000	12.018	9.964	10.000
PFM-121418-08	12.0	14.0	18.0	8.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
PFM-1214-07	12.0	14.0	20.0	7.0	1.0			14.000	14.018	11.957	12.000
PFM-1214-09	12.0	14.0	20.0	9.0	1.0			14.000	14.018	11.957	12.000
PFM-1214-10	12.0	14.0	20.0	10.0	1.0			14.000	14.018	11.957	12.000
PFM-1214-12	12.0	14.0	20.0	12.0	1.0			14.000	14.018	11.957	12.000
PFM-1214-15	12.0	14.0	20.0	15.0	1.0			14.000	14.018	11.957	12.000
PFM-1214-17	12.0	14.0	20.0	17.0	1.0	14.000	14.018	11.957	12.000		
PFM-1416-08	14.0	16.0	22.0	8.0	1.0	14.032	14.102	16.000	16.018	13.957	14.000
PFM-1416-12	14.0	16.0	22.0	12.0	1.0			16.000	16.018	13.957	14.000
PFM-1416-17	14.0	16.0	22.0	17.0	1.0			16.000	16.018	13.957	14.000
PFM-141624-25	14.0	16.0	24.0	25.0	1.0			16.000	16.018	13.957	14.000
PFM-1517-09	15.0	17.0	23.0	9.0	1.0	15.032	15.102	17.000	17.018	14.957	15.000
PFM-1517-12	15.0	17.0	23.0	12.0	1.0			17.000	17.018	14.957	15.000
PFM-1517-17	15.0	17.0	23.0	17.0	1.0			17.000	17.018	14.957	15.000
PFM-1517-22	15.0	17.0	23.0	22.0	1.0			17.000	17.018	14.957	15.000
PFM-151824-32	15.0	18.0	24.0	32.0	1.5	15.032	15.102	18.000	18.018	14.957	15.000
PFM-1618-12	16.0	18.0	24.0	12.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
PFM-1618-17	16.0	18.0	24.0	17.0	1.0			18.000	18.018	15.957	16.000
PFM-161824-40	16.0	18.0	24.0	40.0	1.0			18.000	18.018	15.957	16.000
PFM-1719-25	17.0	19.0	25.0	25.0	1.0	17.032	17.102	19.000	19.021	16.957	17.000
PFM-1820-12	18.0	20.0	26.0	12.0	1.0	18.032	18.102	20.000	20.021	17.957	18.000
PFM-1820-17	18.0	20.0	26.0	17.0	1.0			20.000	20.021	17.957	18.000
PFM-1820-22	18.0	20.0	26.0	22.0	1.0			20.000	20.021	17.957	18.000

iglide®
P

iglide® P - Product range

Flange bearing - Metric


Order key

Type	Dimensions
P F M -04 05 -04	
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

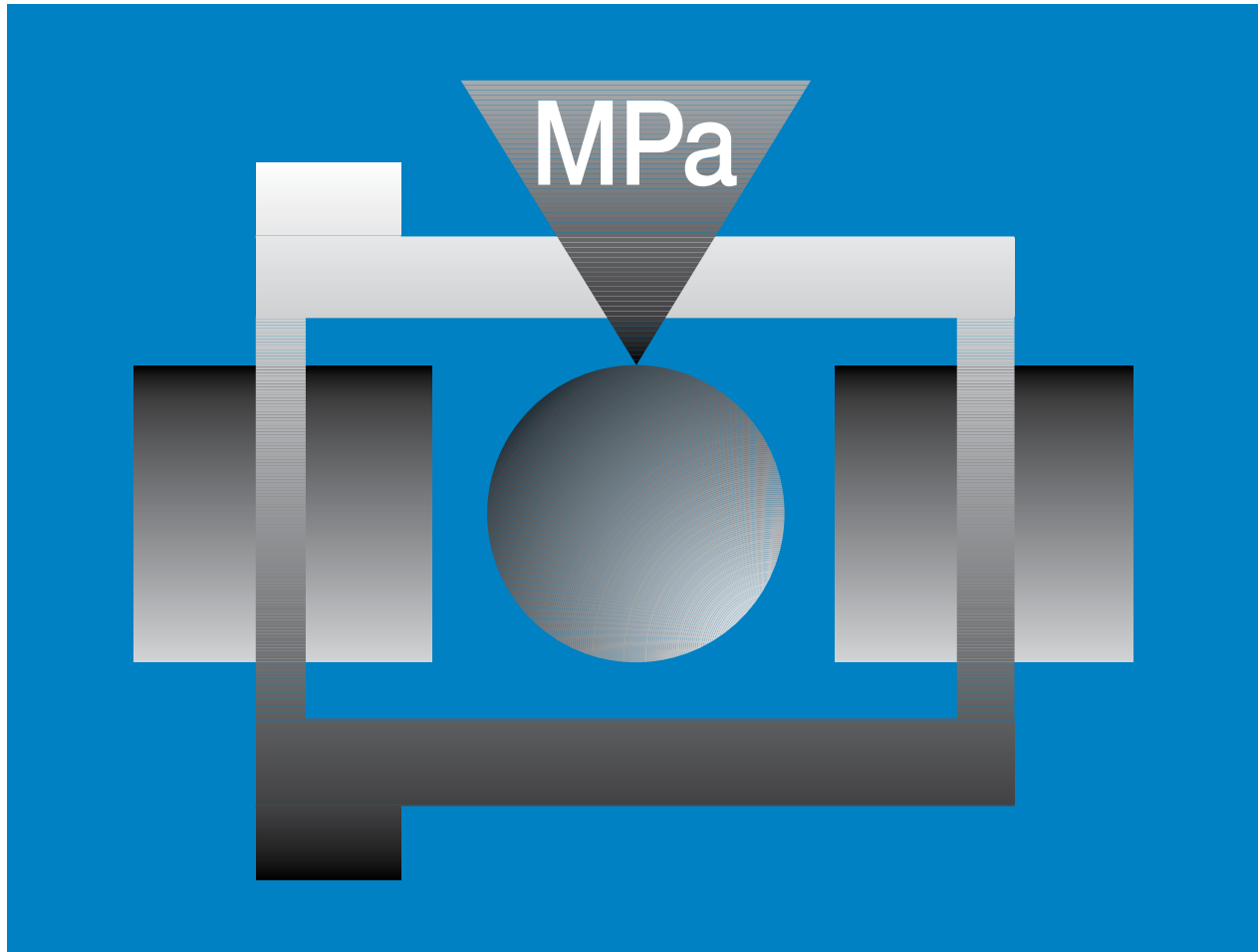
 $r = \max. 0.5$

 For tolerance values
please refer to page 221

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max..	Min.	Max.	Min.	Max.
PFM-2023-11	20.0	23.0	30.0	11.5	1.5	20.040	20.124	23.000	23.021	19.948	20.000
PFM-2023-16	20.0	23.0	30.0	16.5	1.5			23.000	23.021	19.948	20.000
PFM-2023-21	20.0	23.0	30.0	21.5	1.5			23.000	23.021	19.948	20.000
PFM-2023-30	20.0	23.0	30.0	30.0	1.5			23.000	23.021	19.948	20.000
PFM-202328-15	20.0	23.0	28.0	15.0	1.5			23.000	23.021	19.948	20.000
PFM-2528-11	25.0	28.0	35.0	11.5	1.5	25.040	25.124	28.000	28.021	24.948	25.000
PFM-2528-16	25.0	28.0	35.0	16.5	1.5			28.000	28.021	24.948	25.000
PFM-2528-21	25.0	28.0	35.0	21.5	1.5			28.000	28.021	24.948	25.000
PFM-283239-20	28.0	32.0	39.0	20.0	2.0	28.040	28.124	32.000	32.025	28.948	28.000
PFM-3034-16	30.0	34.0	42.0	16.0	2.0	30.040	30.124	34.000	34.025	29.948	30.000
PFM-3034-26	30.0	34.0	42.0	26.0	2.0			34.000	34.025	29.948	30.000
PFM-3034-37	30.0	34.0	42.0	37.0	2.0			34.000	34.025	29.948	30.000
PFM-3236-16	32.0	36.0	40.0	16.0	2.0	32.050	32.150	36.000	36.025	31.938	32.0000
PFM-3539-058	35.0	39.0	47.0	5.8	2.0	35.050	35.150	39.000	39.025	34.938	35.000
PFM-3539-16	35.0	39.0	47.0	16.0	2.0			39.000	39.025	34.938	35.000
PFM-3539-26	35.0	39.0	47.0	26.0	2.0			39.000	39.025	34.938	35.000
PFM-4044-30	40.0	44.0	52.0	30.0	2.0	40.050	40.150	44.000	44.025	39.938	40.000
PFM-4044-40	40.0	44.0	52.0	40.0	2.0			44.000	44.025	39.938	40.000
PFM-4550-50	45.0	50.0	58.0	50.0	2.5	45.050	45.150	50.000	50.025	44.938	45.000
PFM-5055-60	50.0	55.0	63.0	60.0	2.0	50.050	50.150	55.000	55.030	49.938	50.000
PFM-6065-50	60.0	65.0	73.0	50.0	2.0	60.060	60.180	65.000	65.030	59.926	60.000
PFM-7075-50	70.0	75.0	83.0	50.0	2.0	70.060	70.180	75.000	75.030	69.926	70.000
PFM-8085-100	80.0	85.0	93.0	100.0	2.5	80.060	80.180	85.000	85.030	79.926	80.000



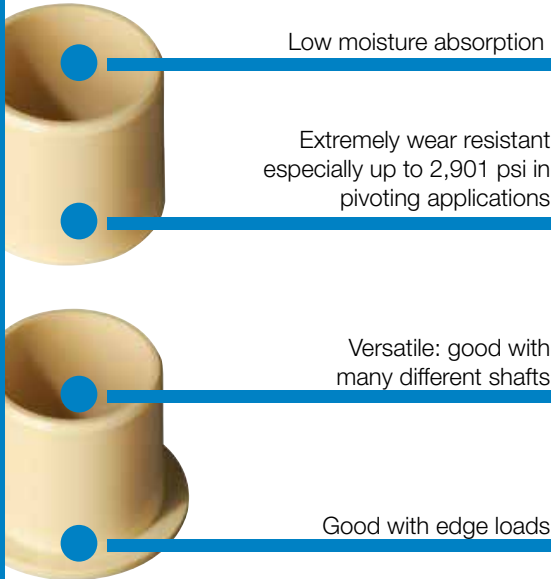
iglide® P210

- Low moisture absorption
- Low wear rates
- High load capacity
- Cost-effective

iglide®
P210

iglide® P210 - Extremely wear resistant

Flexible, wear resistant in pivoting motions and more



This versatile material has already proven its worth in many customer-specific solutions and as a bar stock material. Clip-on or pretensioned design as well as vehicle interior applications are possible. Now available in a standard range.



- When you need a universal bearing for use in a moist environment
- When you need a wear-resistant bearing for pivoting applications at medium loads
- When edge loads and shocks occur
- When the surface pressure of iglide® J is insufficient



- When you need a universal bearing with the largest possible range of dimensions
 - iglide® G300
- When you need a bearing for oscillating applications with high loads
 - iglide® Q
 - iglide® Q2
- When temperatures in excess of 212°F occur
 - iglide® G300
 - iglide® J350



Available from stock

Detailed information about delivery time online.



max. +212°F
min. -40°F



Price breaks online

No minimum order.



Ø 4 to 50 mm
more dimensions on request



Typical application areas

- Automotive interior and/or hinges
- Sports and leisure
- Bicycles

iglide® P210 - Technical Data

 iglide®
P210

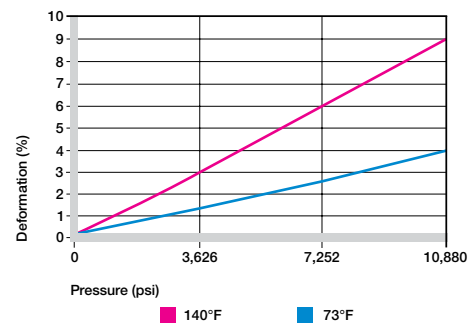
Material Properties Table

General Properties	Unit	iglide® P210	Testing Method
Density	g/cm ³	1.40	
Color		yellow	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.3	DIN 53495
Max. moisture absorption	% weight	0.5	
Coefficient of friction, dynamic against steel	μ	0.07 - 0.19	
pv value, max. (dry)	psi x fpm	11,500	
Mechanical Properties			
Modulus of elasticity	psi	362,600	DIN 53457
Tensile strength at 68°F	psi	10,150	DIN 53452
Compressive strength	psi	7,252	
Permissible static surface pressure (68°F)	psi	7,252	
Shore D-hardness		75	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	212	
Max. application temperature, short-term	°F	320	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.25	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	8	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹²	DIN IEC 93
Surface resistance	Ω	> 10 ¹¹	DIN 53482

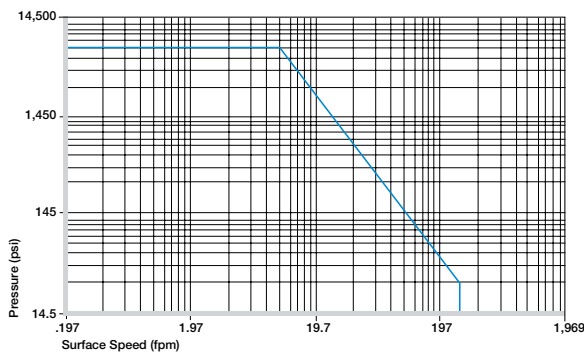
Compressive Strength

The graph shows the elastic deformation of iglide® P210 as a function of radial pressure. At the recommended maximum surface pressure of 7,252 psi, the deformation is less than 3% at room temperature.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv value for iglide® P210 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

Plain bearings made from iglide® P210 are maintenance-free plain bearings, which were developed for low to average surface speeds. The maximum values given in the table can only be achieved at a very low surface pressure. The maximum speed given is the speed at which an increase up to the continuous use temperature occurs due to friction.

► Surface speed, Page 64

► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	196	393
Oscillating	137	275
Linear	590	787

Maximum surface speeds

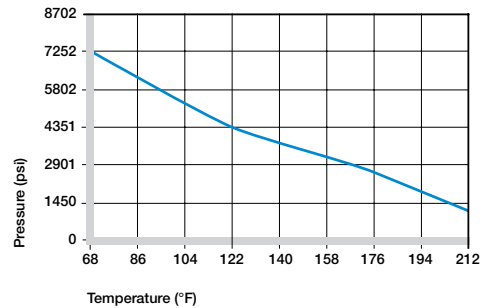
Temperatures

Even at its highest long-term application temperature of 212°F, iglide® P210 is suitable for a large application spectrum. If higher temperatures are required, iglide® G300, with a maximum long-term temperature of 266°F can be used. The ambient temperatures in the bearing system also have an effect on the bearing wear. With increasing temperatures, the wear increases.

► Application temperatures, Page 67

iglide® P210	Application Temperature
Minimum	- 40°F
Max. long-term	+212°F
Max. short-term	+320°F
Additional axial securing	+122°F

Temperature limits for iglide® P210

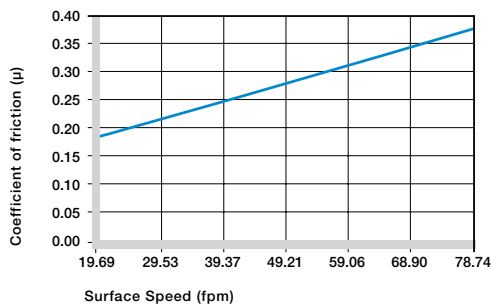


Recommended maximum permissible static surface pressure of iglide® P210 as a result of the temperature

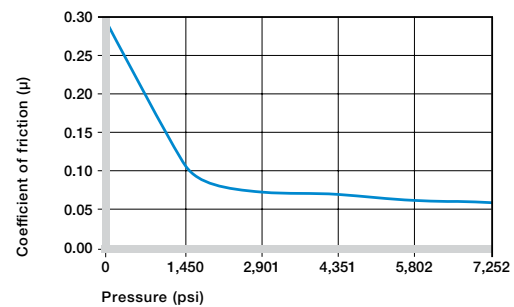
Friction and Wear

Similar to wear resistance, the coefficient of friction changes greatly with increasing load.

- Coefficients of friction and surfaces, Page 68
- Wear resistance, Page 69



Coefficients of friction of iglide® P210 as a result of the surface speed; p = 145 psi



Coefficients of friction of iglide® P210 as a result of the load, v = 1.97 fpm

iglide® P210	Coefficient of Friction
Dry	0.07 - 0.19
Grease	0.09
Oil	0.04
Water	0.04

Coefficients of friction for iglide® P210 against steel
(Shaft finish = 40 rms, 50 HRC)

iglide® P210 - Technical Data

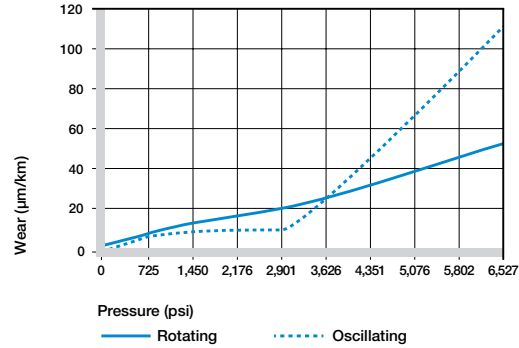
iglide®
P210

Shaft Materials

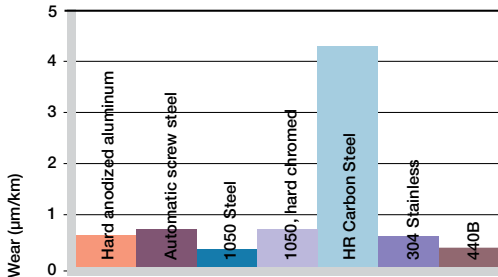
The graphs show results of testing different shaft materials with plain bearings made of iglide® P210.

For rotating movements at radial loads below 145 psi, iglide® P210 has generally very low wear. Wear is only significantly higher in combination with carbon steel shafts. Generally, rotational wear will be higher than for a pivoting application of equal load. This is only reversed at loads above 3,626 psi.

► Shaft Materials, Page 71



Wear for oscillating and rotating applications with shaft material 1050 case hardened and ground steel as a function of the pressure; $v = 59$ fpm

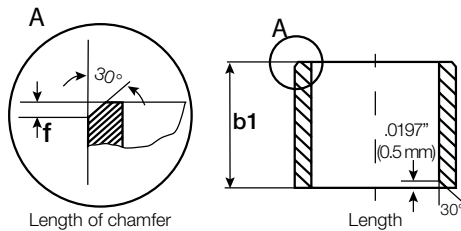


Wear of iglide® P210 with different shaft materials in rotating applications, $p = 145$ psi, $v = 59$ fpm

Installation Tolerances

iglide® P210 plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

- Tolerance table, Page 75
- Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	$f = .012 \rightarrow d_1 .040'' - .236''$
0.2362 to 0.3937	-0.0000 /-0.0087	$f = .019 \rightarrow d_1 > .236'' - .472''$
0.3937 to 0.7086	-0.0000 /-0.0106	$f = .031 \rightarrow d_1 > .472'' - 1.18''$
0.7086 to 1.1811	-0.0000 /-0.0130	$f = .047 \rightarrow d_1 > 1.18''$
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	$f = 0.3 \rightarrow d_1 1 - 6$ mm
> 3 to 6	-0 /-180	$f = 0.5 \rightarrow d_1 > 6 - 12$ mm
> 6 to 10	-0 /-220	$f = 0.8 \rightarrow d_1 > 12 - 30$ mm
>10 to 18	-0 /-270	$f = 1.2 \rightarrow d_1 > 30$ mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance

iglide® P210 plain bearings have a good resistant to chemicals. They are resistant to most lubricants. iglide® P210 is not attacked by most weak organic and inorganic acids.

The moisture absorption of iglide® P210 plain bearings is approximately 0.3% in standard atmosphere. The saturation limit in water is 0.5%. This low moisture absorption is well below the values of iglide® G300.

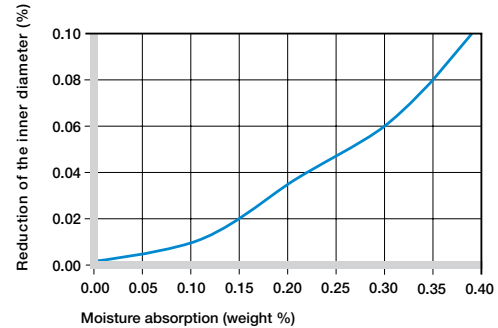
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	-
Greases, oils without additives	+
Fuels	+
Weak acids	0
Strong acids	-
Weak alkaline	-
Strong alkaline	-

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® P210

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® P210 plain bearings

Radiation Resistance

Plain bearings made of iglide® P210 have limited use under radioactive radiation. They are resistant to radiation up to an intensity of 3×10^2 Gy.

UV-Resistance

iglide® P210 plain bearings have a good resistance to UV radiation..

Vacuum

In a vacuum environment, existing moisture of iglide® P210 plain bearings is released as a vapor. Use in a vacuum is limited.

Electrical Properties

iglide® P210 plain bearings are electrically insulating.

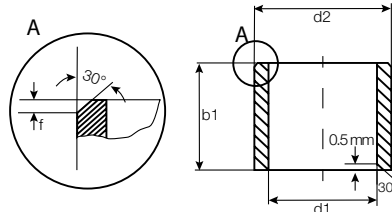
iglide® P210	
Specific volume resistance	> 10^{12} Ωcm
Surface resistance	> 10^{11} Ω

Electrical properties of iglide® P210

iglide® P210 - Product Range

Sleeve bearing - Metric

iglide®
P210



Order key

Type	Dimensions
P210 S M-04 05-04	
iglide® material	Form S (sleeve)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

For tolerance values please refer to page 235

Dimensions according to ISO 3547-1 and special dimensions

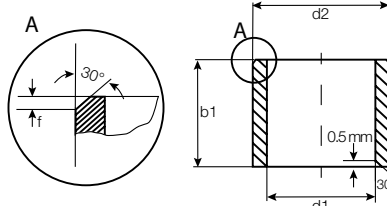
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
P210SM-0405-04	4.0	5.5	4.0	4.020	4.068	5.500	5.512	3.970	4.000
P210SM-0405-06	4.0	5.5	6.0			5.500	5.512	3.970	4.000
P210SM-0507-05	5.0	7.0	5.0	5.020	5.068	7.000	7.015	4.970	5.000
P210SM-0507-10	5.0	7.0	10.0			7.000	7.015	4.970	5.000
P210SM-0608-06	6.0	8.0	6.0	6.020	6.068	8.000	8.015	5.970	6.000
P210SM-0608-08	6.0	8.0	8.0			8.000	8.015	5.970	6.000
P210SM-0608-10	6.0	8.0	10.0			8.000	8.015	5.970	6.000
P210SM-0810-08	8.0	10.0	8.0	8.025	8.083	10.000	10.015	7.964	8.000
P210SM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
P210SM-0810-12	8.0	10.0	12.0			10.000	10.015	7.964	8.000
P210SM-1012-08	10.0	12.0	8.0	10.025	10.083	12.000	12.018	9.964	10.000
P210SM-1012-10	10.0	12.0	10.0			12.000	12.018	9.964	10.000
P210SM-1012-12	10.0	12.0	12.0			12.000	12.018	9.964	10.000
P210SM-1012-15	10.0	12.0	15.0			12.000	12.018	9.964	10.000
P210SM-1012-20	10.0	12.0	20.0			12.000	12.018	9.964	10.000
P210SM-1214-10	12.0	14.0	10.0	12.032	12.102	14.000	14.018	11.957	12.000
P210SM-1214-12	12.0	14.0	12.0			14.000	14.018	11.957	12.000
P210SM-1214-15	12.0	14.0	15.0			14.000	14.018	11.957	12.000
P210SM-1214-20	12.0	14.0	20.0			14.000	14.018	11.957	12.000
P210SM-1315-10	13.0	15.0	10.0	13.032	13.102	15.000	15.018	12.957	13.000
P210SM-1315-20	13.0	15.0	20.0			15.000	15.018	12.957	13.000
P210SM-1416-15	14.0	16.0	15.0	14.032	14.102	16.000	16.018	13.957	14.000
P210SM-1416-20	14.0	16.0	20.0			16.000	16.018	13.957	14.000
P210SM-1416-25	14.0	16.0	25.0			16.000	16.018	13.957	14.000
P210SM-1517-15	15.0	17.0	15.0	15.032	15.102	17.000	17.018	14.957	15.000
P210SM-1517-20	15.0	17.0	20.0			17.000	17.018	14.957	15.000
P210SM-1517-25	15.0	17.0	25.0			17.000	17.018	14.957	15.000
P210SM-1618-15	16.0	18.0	15.0	16.032	16.102	18.000	18.018	15.957	16.000
P210SM-1618-20	16.0	18.0	20.0			18.000	18.018	15.957	16.000
P210SM-1618-25	16.0	18.0	25.0			18.000	18.018	15.957	16.000
P210SM-1820-15	18.0	20.0	15.0	18.032	18.102	20.000	20.021	17.957	18.000
P210SM-1820-20	18.0	20.0	20.0			20.000	20.021	17.957	18.000
P210SM-1820-25	18.0	20.0	25.0			20.000	20.021	17.957	18.000
P210SM-2023-10	20.0	23.0	10.0	20.040	20.124	23.000	23.021	19.948	20.000
P210SM-2023-15	20.0	23.0	15.0			23.000	23.021	19.948	20.000
P210SM-2023-20	20.0	23.0	20.0			23.000	23.021	19.948	20.000
P210SM-2023-25	20.0	23.0	25.0			23.000	23.021	19.948	20.000

iglide®
P210

iglide® P210 - Product Range

Sleeve bearing - Metric



Order key

Type	Dimensions
P210 S M -04 05-04	
iglide® material	Form S (sleeve)
	Metric
	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

For tolerance values
please refer to page 235

Dimensions according to ISO 3547-1 and special dimensions

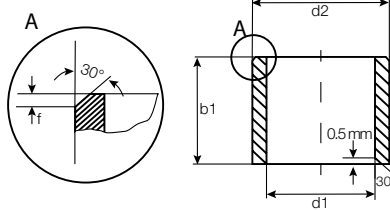
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
P210SM-2023-30	20.0	23.0	30.0	20.040	20.124	23.000	23.021	19.948	20.000
P210SM-2225-15	22.0	25.0	15.0	22.040	22.124	25.000	25.021	21.948	22.000
P210SM-2225-20	22.0	25.0	20.0			25.000	25.021	21.948	22.000
P210SM-2225-25	22.0	25.0	25.0			25.000	25.021	21.948	22.000
P210SM-2225-30	22.0	25.0	30.0			25.000	25.021	21.948	22.000
P210SM-2427-15	24.0	27.0	15.0	24.040	24.124	27.000	27.021	23.948	24.000
P210SM-2427-20	24.0	27.0	20.0			27.000	27.021	23.948	24.000
P210SM-2427-25	24.0	27.0	25.0			27.000	27.021	23.948	24.000
P210SM-2427-30	24.0	27.0	30.0			27.000	27.021	23.948	24.000
P210SM-2528-15	25.0	28.0	15.0	25.040	25.124	28.000	28.021	24.948	25.000
P210SM-2528-20	25.0	28.0	20.0			28.000	28.021	24.948	25.000
P210SM-2528-25	25.0	28.0	25.0			28.000	28.021	24.948	25.000
P210SM-2528-30	25.0	28.0	30.0			28.000	28.021	24.948	25.000
P210SM-2832-20	28.0	32.0	20.0	28.040	28.124	32.000	32.025	27.948	28.000
P210SM-2832-25	28.0	32.0	25.0			32.000	32.025	27.948	28.000
P210SM-2832-30	28.0	32.0	30.0			32.000	32.025	27.948	28.000
P210SM-3034-20	30.0	34.0	20.0	30.040	30.124	34.000	34.025	29.948	30.000
P210SM-3034-25	30.0	34.0	25.0			34.000	34.025	29.948	30.000
P210SM-3034-30	30.0	34.0	30.0			34.000	34.025	29.948	30.000
P210SM-3034-40	30.0	34.0	40.0			34.000	34.025	29.948	30.000
P210SM-3236-20	32.0	36.0	20.0	32.050	32.150	36.000	36.025	31.938	32.000
P210SM-3236-30	32.0	36.0	30.0			36.000	36.025	31.938	32.000
P210SM-3236-40	32.0	36.0	40.0			36.000	36.025	31.938	32.000
P210SM-3539-20	35.0	39.0	20.0	35.050	35.150	39.000	39.025	34.938	35.000
P210SM-3539-30	35.0	39.0	30.0			39.000	39.025	34.938	35.000
P210SM-3539-40	35.0	39.0	40.0			39.000	39.025	34.938	35.000
P210SM-3539-50	35.0	39.0	50.0			39.000	39.025	34.938	35.000
P210SM-4044-20	40.0	44.0	20.0	40.050	40.150	44.000	44.025	39.938	40.000
P210SM-4044-30	40.0	44.0	30.0			44.000	44.025	39.938	40.000
P210SM-4044-40	40.0	44.0	40.0			44.000	44.025	39.938	40.000
P210SM-4044-50	40.0	44.0	50.0			44.000	44.025	39.938	40.000
P210SM-4550-20	45.0	50.0	20.0	45.050	45.150	50.000	50.025	44.938	45.000
P210SM-4550-30	45.0	50.0	30.0			50.000	50.025	44.938	45.000
P210SM-4550-40	45.0	50.0	40.0			50.000	50.025	44.938	45.000
P210SM-4550-50	45.0	50.0	50.0			50.000	50.025	44.938	45.000
P210SM-5055-20	50.0	55.0	20.0	50.050	50.150	55.000	55.030	49.938	50.000
P210SM-5055-30	50.0	55.0	30.0			55.000	55.030	49.938	50.000

iglide® P210 - Product Range

Sleeve bearing - Metric

iglide®
P210



Order key

Type		Dimensions		
P210	S	M	-04	05-04
iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)
				Length b1 (mm)

For tolerance values
please refer to page 235

Dimensions according to ISO 3547-1 and special dimensions

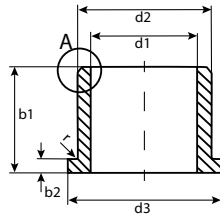
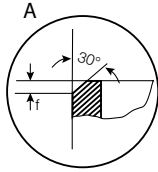
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
P210SM-5055-40	50.0	55.0	40.0	50.050	50.150	55.000	55.030	49.938	50.000
P210SM-5055-50	50.0	55.0	50.0			55.000	55.030	49.938	50.000
P210SM-5055-60	50.0	55.0	60.0			55.000	55.030	49.938	50.000

iglide®
P210

iglide® P210 - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
P210 F M -06 08-04	
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

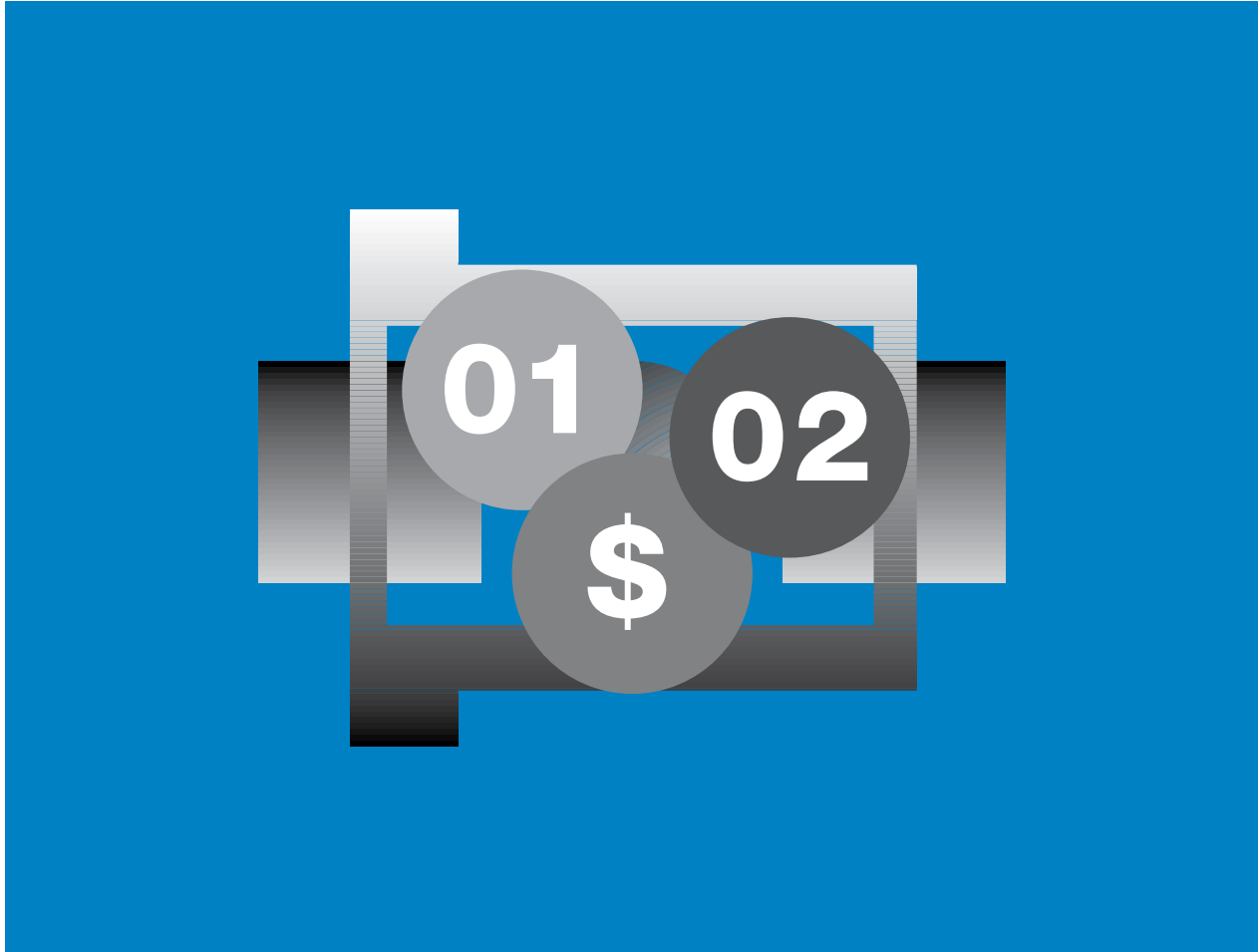
 $r = \max. 0.5$

 For tolerance values
please refer to page 235

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
P210FM-0608-04	6.0	8.0	12.0	4.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
P210FM-0608-08	6.0	8.0	12.0	8.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
P210FM-0810-05	8.0	10.0	15.0	5.5	1.0	8.025	8.083	10.000	10.015	7.964	8.000
P210FM-0810-07	8.0	10.0	15.0	7.5	1.0	8.025	8.083	10.000	10.015	7.964	8.000
P210FM-0810-09	8.0	10.0	15.0	9.5	1.0	8.025	8.083	10.000	10.015	7.964	8.000
P210FM-1012-07	10.0	12.0	18.0	7.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
P210FM-1012-09	10.0	12.0	18.0	9.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
P210FM-1012-10	10.0	12.0	18.0	10.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
P210FM-1012-12	10.0	12.0	18.0	12.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
P210FM-1012-17	10.0	12.0	18.0	17.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
P210FM-1214-07	12.0	14.0	20.0	7.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
P210FM-1214-09	12.0	14.0	20.0	9.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
P210FM-1214-12	12.0	14.0	20.0	12.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
P210FM-1214-17	12.0	14.0	20.0	17.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
P210FM-1416-12	14.0	16.0	22.0	12.0	1.0	14.032	14.102	16.000	16.018	13.957	14.000
P210FM-1416-17	14.0	16.0	22.0	17.0	1.0	14.032	14.102	16.000	16.018	13.957	14.000
P210FM-1517-09	15.0	17.0	23.0	9.0	1.0	15.032	15.102	17.000	17.018	14.957	15.000
P210FM-1517-12	15.0	17.0	23.0	12.0	1.0	15.032	15.102	17.000	17.018	14.957	15.000
P210FM-1517-17	15.0	17.0	23.0	17.0	1.0	15.032	15.102	17.000	17.018	14.957	15.000
P210FM-1618-12	16.0	18.0	24.0	12.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
P210FM-1618-17	16.0	18.0	24.0	17.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
P210FM-1820-12	18.0	20.0	26.0	12.0	1.0	18.032	18.102	20.000	20.021	17.957	18.000
P210FM-1820-17	18.0	20.0	26.0	17.0	1.0	18.032	18.102	20.000	20.021	17.957	18.000
P210FM-1820-22	18.0	20.0	26.0	22.0	1.0	18.032	18.102	20.000	20.021	17.957	18.000
P210FM-2023-11	20.0	23.0	30.0	11.5	1.5	20.040	20.124	23.000	23.021	19.948	20.000
P210FM-2023-16	20.0	23.0	30.0	16.5	1.5	20.040	20.124	23.000	23.021	19.948	20.000
P210FM-2023-21	20.0	23.0	30.0	21.5	1.5	20.040	20.124	23.000	23.021	19.948	20.000
P210FM-2528-11	25.0	28.0	35.0	11.5	1.5	25.040	25.124	28.000	28.021	24.948	25.000
P210FM-2528-16	25.0	28.0	35.0	16.5	1.5	25.040	25.124	28.000	28.021	24.948	25.000
P210FM-2528-21	25.0	28.0	35.0	21.5	1.5	25.040	25.124	28.000	28.021	24.948	25.000
P210FM-3034-16	30.0	34.0	42.0	16.0	2.0	30.040	30.124	34.000	34.025	29.948	30.000
P210FM-3034-26	30.0	34.0	42.0	26.0	2.0	30.040	30.124	34.000	34.025	29.948	30.000
P210FM-3539-16	35.0	39.0	47.0	16.0	2.0	35.050	35.150	39.000	39.025	34.938	35.000
P210FM-3539-26	35.0	39.0	47.0	26.0	2.0	35.050	35.150	39.000	39.025	34.938	35.000
P210FM-4044-30	40.0	44.0	52.0	30.0	2.0	40.050	40.150	44.000	44.025	39.938	40.000
P210FM-4044-40	40.0	44.0	52.0	40.0	2.0	40.050	40.150	44.000	44.025	39.938	40.000
P210FM-4550-50	45.0	50.0	58.0	50.0	2.5	45.050	45.150	50.000	50.025	44.938	45.000



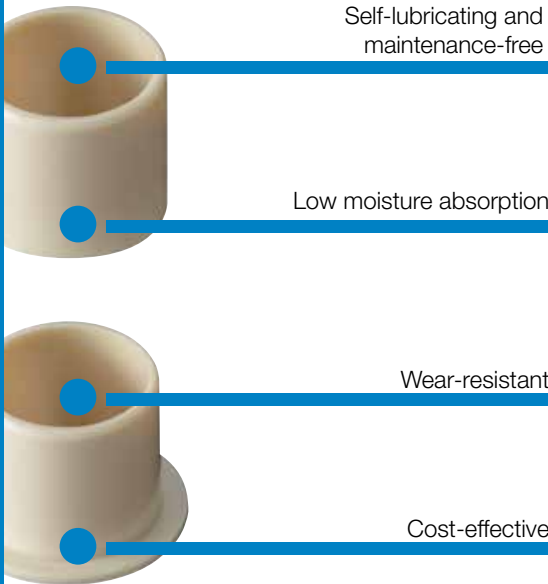
iglide[®] K

- Low moisture absorption
- Wear-resistant
- Cost-effective

iglide®
K

iglide® K - Low-cost for medium temperatures

Versatile



iglide® K is a general purpose bearing for medium temperatures, low moisture absorption and good environmental resistance.



- When you need a cost-effective, general purpose bearing
- For use in wet environments
- When good wear resistance is required at medium loads



- When highest wear resistance is necessary
➤ iglide® L280
- If high media resistance is required
➤ iglide® X6
- When a high temperature bearing is necessary
➤ iglide® H



Available from stock

Detailed information about delivery time online.



max. +338°F
min. -40°F



Order dependent



Contact igus®

Sizes available upon request



Typical application areas

- Printing industry
- Electronics industry
- Packaging
- Medical
- Polymer processing machines

iglide® K - Technical Data

 iglide®
K

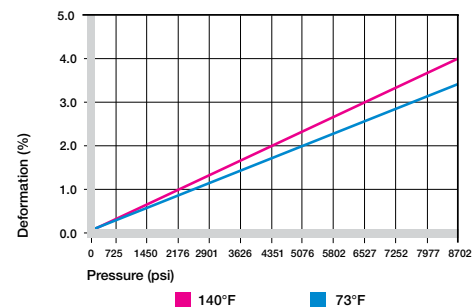
Material Properties Table

General Properties	Unit	iglide® K	Testing Method
Density	g/cm ³	1.52	
Color		yellow beige	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.1	DIN 53495
Max. moisture absorption	% weight	0.6	
Coefficient of friction, dynamic against steel	μ	0.06 - 0.21	
pv value, max. (dry)	psi x fpm	8,600	
Mechanical Properties			
Modulus of elasticity	psi	507,600	DIN 53457
Tensile strength at 68°F	psi	11,600	DIN 53452
Compressive strength	psi	8,702	
Permissible static surface pressure (68°F)	psi	7,205	
Shore D-hardness		72	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	338	
Max. application temperature, short-term	°F	464	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.25	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	3	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹²	DIN IEC 93
Surface resistance	Ω	> 10 ¹²	DIN 53482

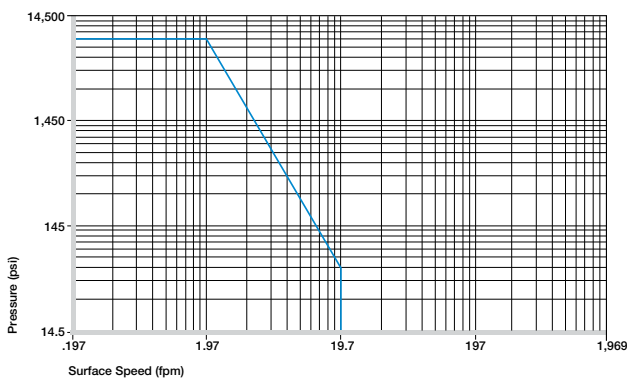
Compressive Strength

The graph shows the elastic deformation of iglide® K during radial loading. At the recommended maximum surface pressure of 8,702 psi the deformation is less than 5%. Plastic deformation can occur, this depends on the applied pressure.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv value for iglide® K running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® K has been developed for low to medium surface speeds. The maximum values shown in the table can only be achieved at low pressure. At the given speeds, friction can cause a temperature increase to maximum permissible levels. In practice though, this temperature level is rarely reached, due to varying application conditions.

► Surface speed, Page 64
 ► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	197	393
Oscillating	137	275
Linear	591	787

Maximum surface speeds

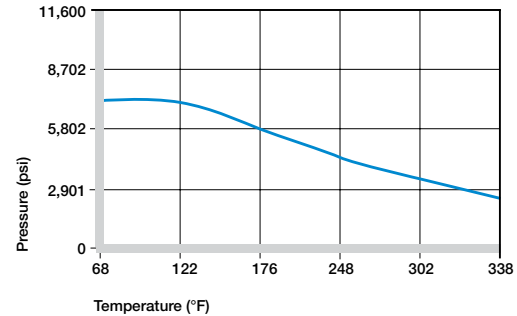
Temperatures

iglide® K plain bearings can be used at temperatures from -40°F up to 338°F. The short-term maximum temperature is 464°F. The ambient temperatures of the application also have an effect on the bearing wear. With increasing temperatures, the wear increases and this effect is significant when temperatures rise over 212°F.

► Application temperatures, Page 67

iglide® K	Application Temperature
Minimum	- 40°F
Max. long-term	+338°F
Max. short-term	+464°F
Additional axial securing	+158°F

Temperature limits for iglide® K



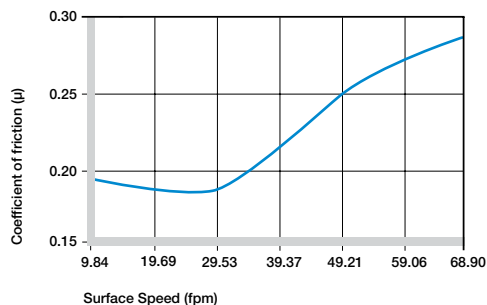
Recommended maximum permissible static surface pressure of iglide® K as a result of the temperature

Friction and Wear

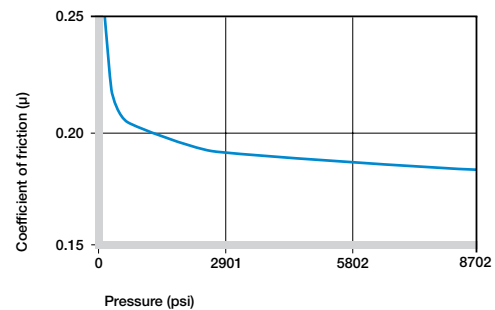
Similar to wear resistance, the coefficient of friction μ also changes with the load. The coefficient of friction decreases with increasing loads, whereas an increase in surface speed causes an increase of the coefficient of friction. The friction and wear are also dependent, to a large degree, on the shaft material. Shafts that are too smooth increase both the coefficient of friction and the wear of the bearing. For iglide® K a ground surface with an average roughness of 6-8 rms is recommended.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® K as a function of the running speed; p = 108 psi



Coefficients of friction of iglide® K as a function of the load, v = 1.96 fpm

iglide® K	Coefficient of Friction
Dry	0.06 - 0.21
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® K against steel (Shaft finish = 40 rms, 50 HRC)

iglide® K - Technical Data

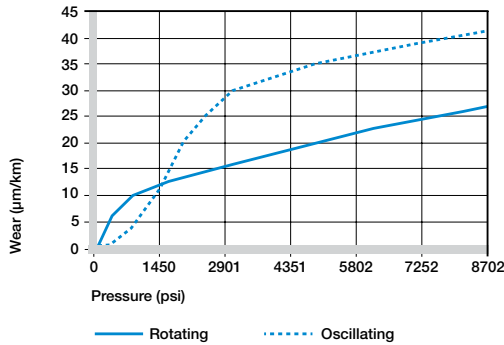
iglide®
K

Shaft Materials

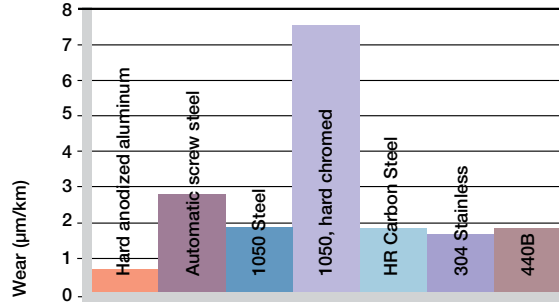
The graphs show the results of testing different shaft materials with plain bearings made of iglide® K. The graph below shows that iglide® K can be combined with a large number of different shaft materials. Only hard-chromed shafts are unsuitable. It is important to notice that with increasing loads, the recommended hardness of the shaft increases. Soft shafts tend to wear more easily and thus increase the wear of the overall system, if the loads exceed 290 psi.

The comparison of rotational movements to oscillating movements shows that the wear is almost identical at a pressure up to 725 psi. The higher the loads the greater the difference.

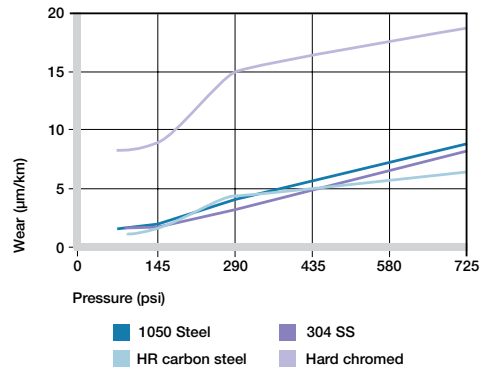
► Shaft Materials, Page 71



Wear with different shaft materials, oscillating and rotating movement p = 290 psi



Wear of iglide® K, rotating applications with different shaft materials, p = 145 psi, v = 59 fpm

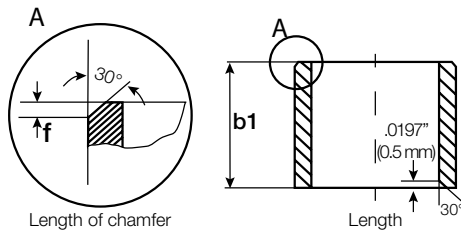


Wear of iglide® K with different shaft materials in rotational applications

Installation Tolerances

iglide® K plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 / -0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 / -0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 / -0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 / -0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 / -0.0154	
1.9685 to 3.1496	-0.0000 / -0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 / -140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 / -180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 / -220	f = 0.8 → d ₁ > 12 - 30 mm
> 10 to 18	-0 / -270	f = 1.2 → d ₁ > 30 mm
> 18 to 30	-0 / -330	
> 30 to 50	-0 / -390	
> 50 to 80	-0 / -460	

Chemical Resistance

iglide® K plain bearings are resistant to diluted alkalis and very weak acids, as well as fuels and a wide variety of lubricants. The low moisture absorption also permits use in wet or damp environments.

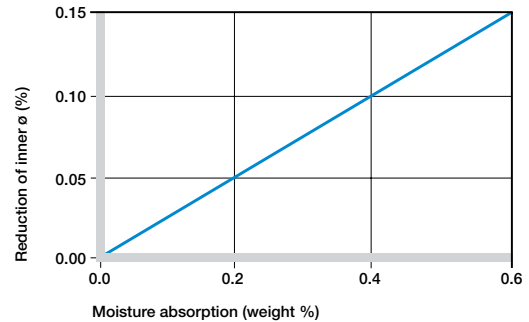
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+ to 0
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to -
Strong acids	-
Weak alkaline	+
Strong alkaline	0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® K

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® K plain bearings

Radiation Resistance

Plain bearings made from iglide® K are radiation resistant up to an intensity of 5×10^2 Gy.

UV-Resistance

iglide® K plain bearings become discolored under UV radiation. However, hardness, compressive strength and the wear resistance of the material do not change.

Vacuum

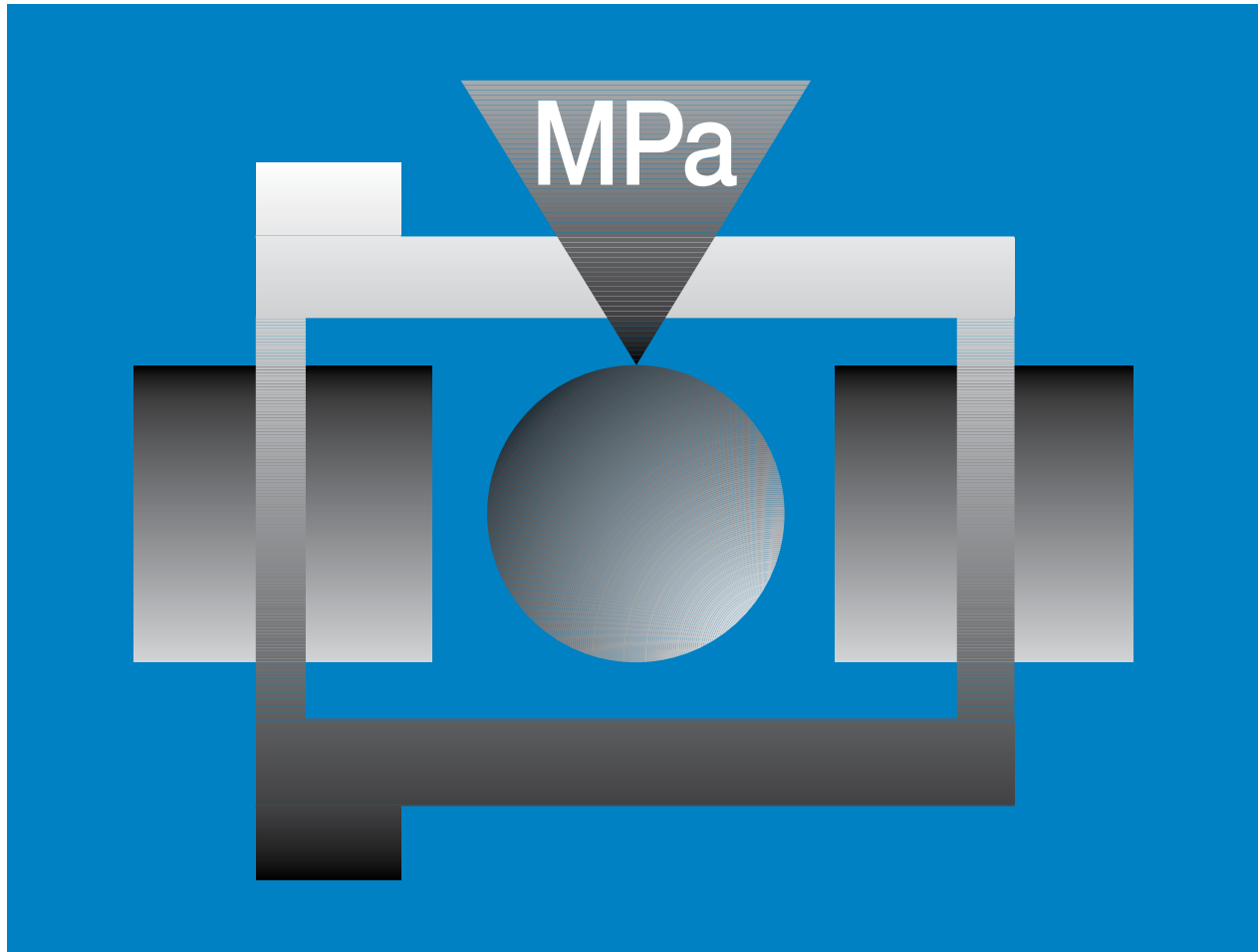
When used in a vacuum environment, the iglide® K plain bearings release moisture as vapor. Therefore, only dehumidified bearings are suitable in a vacuum environment.

Electrical Properties

iglide® K plain bearings are electrically insulating.

iglide® K	
Specific volume resistance	> 10^{12} Ωcm
Surface resistance	> 10^{12} Ω

Electrical properties of iglide® K



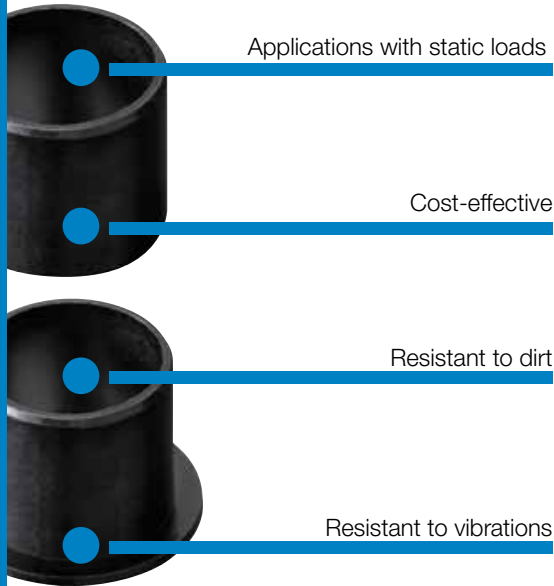
iglide® GLW

- Applications with static loads
- Resistant to dirt
- Cost-effective at high volumes

iglide®
GLW

iglide® GLW - Low cost material for high quantities

For high quantities and medium loads



iglide® GLW plain bearings are preferred in applications with static load, where only occasional movement takes place.



- When you need an economical universal bearing for mass production
- For high, primarily static loads
- For low to medium speeds



- When mechanical reaming of the wall surface is necessary
 - iglide® M250
- For primarily dynamic loads
 - iglide® G300
- When the highest wear resistance is necessary
 - iglide® L280
- For underwater applications
 - iglide® H2



Available on request

Detailed information about delivery time online.



max. +212°F
min. -40°F



Order dependent



Contact igus®
Sizes available upon request



Typical application areas

- Automation
- Vehicle manufacturing
- Industrial handling



Contact igus®
Sizes available upon request



iglide® GLW - Technical Data

 iglide®
GLW

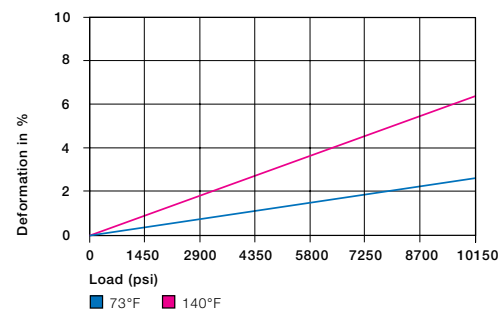
Material Properties Table

General Properties	Unit	iglide® GLW	Testing Method
Density	g/cm ³	1.36	
Color		black	
Max. moisture absorption at 73°F / 50% r.h.	% weight	1.3	DIN 53495
Max. moisture absorption	% weight	5.5	
Coefficient of friction, dynamic against steel	μ	0.10 - 0.24	
pv value, max. (dry)	psi x fpm	8,600	
Mechanical Properties			
Modulus of elasticity	psi	1,116,500	DIN 53457
Tensile strength at 68°F	psi	34,075	DIN 53452
Compressive strength	psi	10,730	
Permissible static surface pressure (68°F)	psi	11,600	
Shore D-hardness		78	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	212	
Max. application temperature, short-term	°F	320	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	17	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹¹	DIN IEC 93
Surface resistance	Ω	> 10 ¹¹	DIN 53482

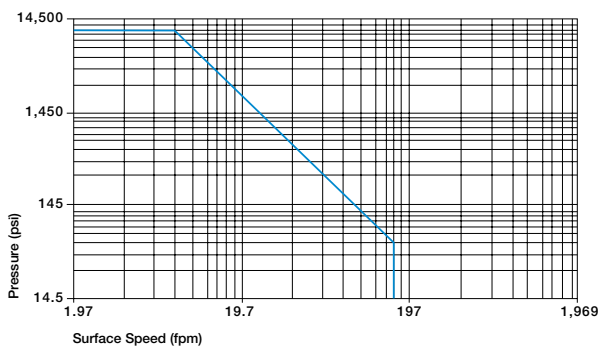
Compressive Strength

The graph shows the elastic deformation of iglide® GLW for radial loads. At the maximum permissible load of 10,150 psi at room temperature, the deformation is less than 3%. At this load, a plastic deformation is minimal. However, it is also a result of the cycle time.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv value for iglide® GLW running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® GLW was developed for low to average surface speeds. In constant operation, a maximum 157 fpm (rotating) or 492 fpm (linear) is permitted. Please note that the maximum values shown in the table are only possible at the lowest pressure loads. In practice, these values are rarely reached, due to the temperature increasing over the maximum permitted value.

► Surface speed, Page 64
 ► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	157	196
Oscillating	118	137
Linear	492	590

Maximum surface speeds

Temperatures

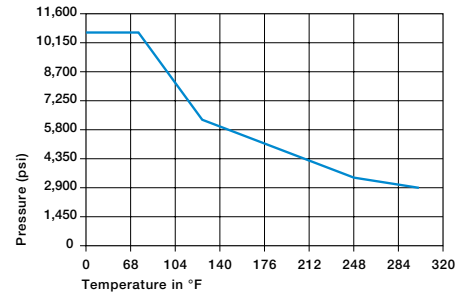
The surrounding temperatures affect the properties of plain bearings to a large extent. With a maximum permissible short-term temperature of 320°F, it is possible to subject iglide® GLW plain bearings to a heat treating process, provided they are not additionally loaded. With increasing temperatures, the compressive strength of iglide® GLW plain bearings decreases. The graph shows this relationship.

With increasing temperatures in the bearing system, the wear also increases.

► Application temperatures, Page 67

iglide® GLW	Application Temperature
Minimum	- 40°F
Max. long-term	+212°F
Max. short-term	+320°F
Additional axial securing	+176°F

Temperature limits for iglide® GLW

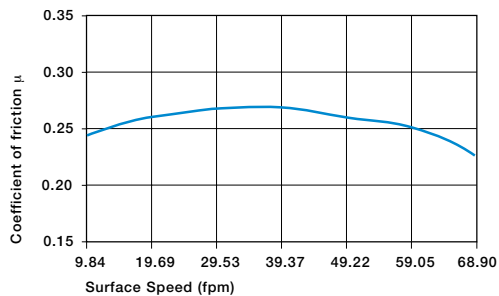


Recommended maximum permissible static surface pressure of iglide® GLW as a result of the temperature

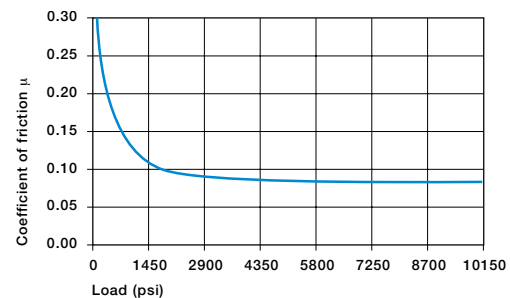
Friction and Wear

Similar to wear resistance, the coefficient of friction changes greatly with increasing load.

- Coefficients of friction and surfaces, Page 68
- Wear resistance, Page 69



Coefficient of friction of iglide® GLW as a result of the surface speed p = 108 psi (1050 hard chromed)



Coefficient of friction of iglide® GLW as a result of the shaft surface v = 1.97 fpm (1050 hard chromed)

iglide® GLW	Coefficient of Friction
Dry	0.10 - 0.24
Grease	0.09
Oil	0.04
Water	0.04

Coefficients of friction for iglide® GLW against steel
(Shaft finish = 40 rms, 50 HRC)

iglide® GLW - Technical Data

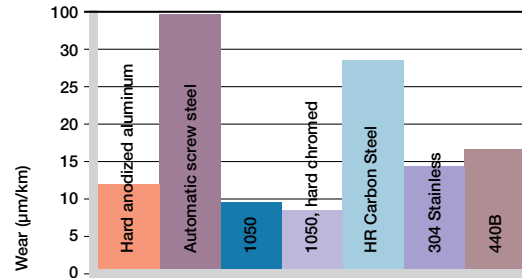
iglide®
GLW

Shaft Materials

To a large extent, friction and wear depend on the shaft material. Shafts that are too smooth increase both the coefficient of friction and the wear of the bearing. A ground surface with an average roughness between 4 and 8 rms is the most suitable. The following graph shows an extract of the results of tests with different shaft materials using iglide® GLW plain bearings.

If the shaft material you plan on using is not shown in these test results, please contact us.

► Shaft Materials, Page 71

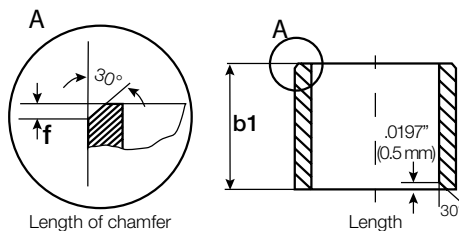


Wear with different shaft materials (p = 108 psi; v = 98 fpm)

Installation Tolerances

iglide® GLW plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings

Length Tolerance (b1)		
Length (inches)	Tolerance (h13) (inches)	Length of Chamfer (f) Based on d1
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings

Length Tolerance (b1)		
Length (mm)	Tolerance (h13) (mm)	Length of Chamfer (f) Based on d1
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance

iglide® GLW plain bearings have a good resistance to chemicals. They are resistant to most lubricants. iglide® GLW is not attacked by most organic and inorganic acids. The moisture absorption of iglide® GLW plain bearings is approximately 1% in standard atmosphere. The saturation limit in water is 5%. This must be taken into account along with other applicable conditions.

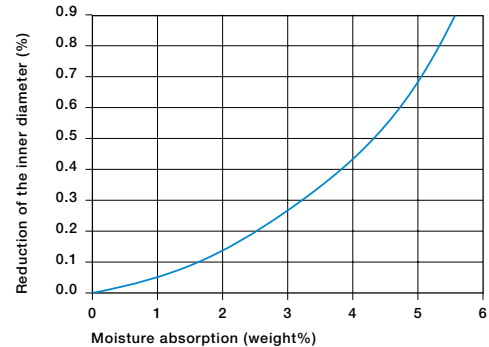
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+ to 0
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to -
Strong acids	-
Weak alkaline	+
Strong alkaline	0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® GLW

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® GLW plain bearings

Radiation Resistance

Plain bearings made from iglide® GLW are resistant to radiation up to an intensity of 3×10^2 Gy.

UV-Resistance

iglide® GLW plain bearings are permanently resistant to UV radiation.

Vacuum

In a vacuum environment, iglide® GLW plain bearings release gases. Use in a vacuum should be tested beforehand.

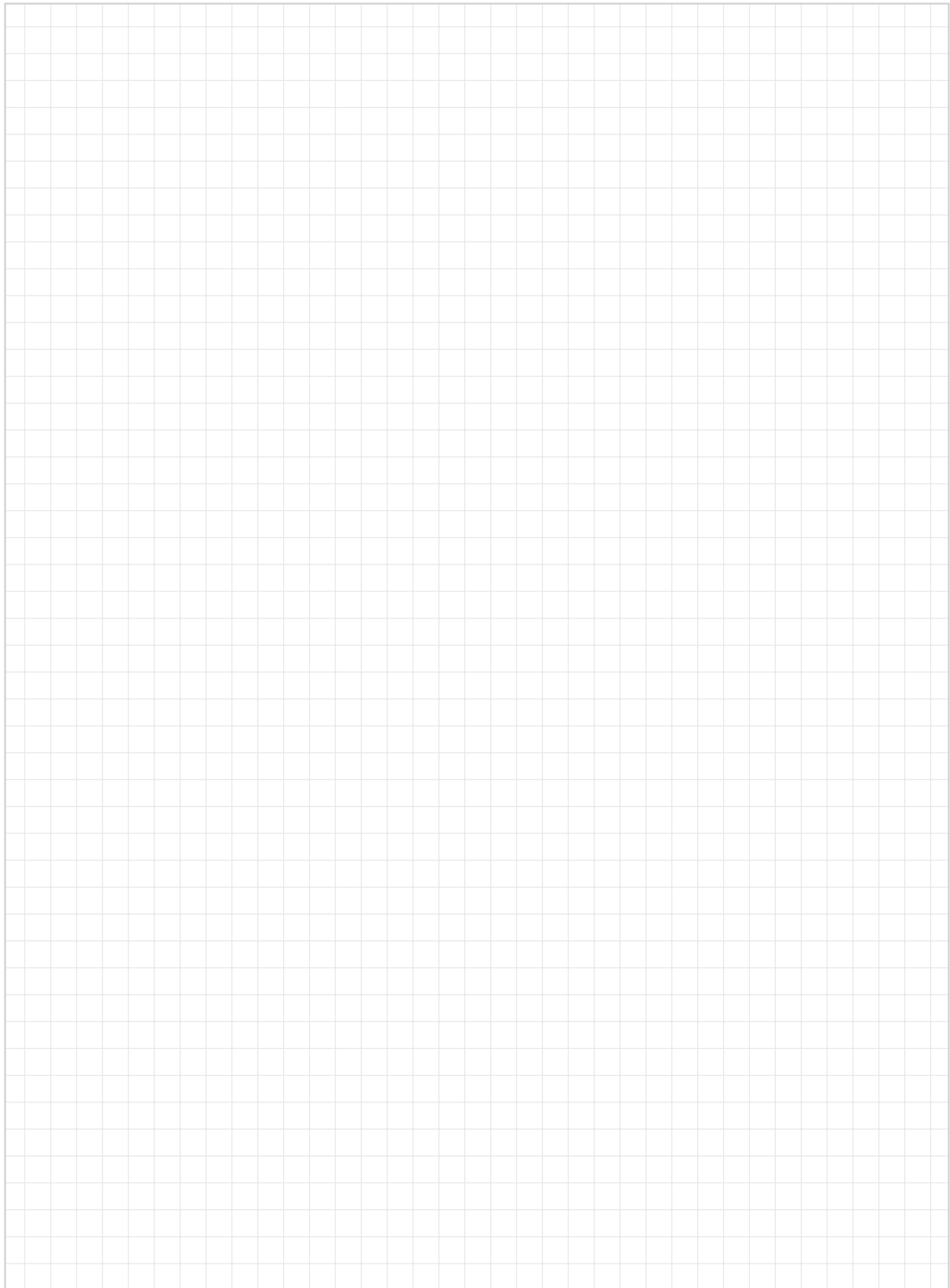
Electrical Properties

iglide® GLW plain bearings are electrically insulating.

iglide® GLW	
Specific volume resistance	> 10^{11} Ωcm
Surface resistance	> 10^{11} Ω

Electrical properties of iglide® GLW

Notes



iglide® Bearings - Advantages



Ideal for plastic shafts –
iglide® J260
► Page 259



Runs up to three times longer than iglide® J –
iglide® J3
► Page 267



High temperatures, versatile –
iglide® J350
► Page 279



General purpose endurance runner –
iglide® W360
► Page 291



For high speeds –
iglide® L250
► Page 299



Low-cost material with silicone –
iglide® D
► Page 307



Specially for aluminum shafts –
iglide® J200
► Page 313


For long service life


While every iglide® bearing is optimized for low rates of wear, the materials in this group offer exceptional wear rates and long service life.

In addition to high service life and low cost, these bearing materials differ for a number of reasons, including temperature resistance, load ranges, and suitability when used in conjunction with different shaft materials.


- Self-lubricating and maintenance-free
- Lightweight
- Good price/performance ratio
- Predictable service life

 **Online product finder**
► www.igus.com/iglide-finder

 max. +356 °F
min. -148 °F

 **7 materials**



 **Ø 2 to 40 mm**
more dimensions on request

iglide® Bearings - Application examples

For long service life



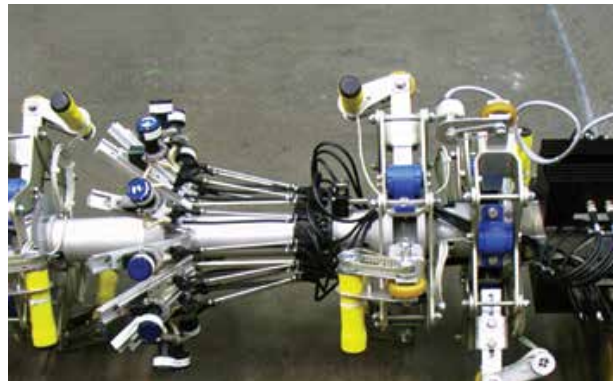
Under a vehicle body, bearings come into contact with heavy dirt accumulation.



Self-lubricating iglide® bearings are resistant to aggressive cleaning products used in this blow film line.



Two linear and one rotary motion are combined with self-lubricating iglide® bearings in the tightest installation spaces.



Dirt-resistant iglide® bearings are generally recommended for extremely high loads at low to medium speeds.



On this packaging machinery, iglide® bearings stand up to temperatures often reaching +320 °F or above in continuous operation.



To ensure the long-term durability of street sweepers, the manufacturer decided to utilize self-lubricating, maintenance-free iglide® bearings.

iglide® Bearings - Selection Guide - Main Properties

For long service life



Standard
catalog
range



Bar
stock



speedigus®
material



Long life
in dry
operation



For high
loads



Dirt
resistant



Low
coefficient
of friction



Chemical
resistant

	Standard catalog range	Bar stock	speedigus® material	Long life in dry operation	For high loads	Dirt resistant	Low coefficient of friction	Chemical resistant
iglide® J260	●	●		●			●	
iglide® J3	●	●		●			●	
iglide® J350	●	●		●	●		●	●
iglide® W360	●			●			●	
iglide® L250	●			●			●	
iglide® D							●	
iglide® J200		●		●		●	●	



Low water
absorption



For under
water use



Edge
pressure



Vibrations
dampening



Food
suitable



Temperatures
up to
+194°F



Temperatures
up to
+302°F

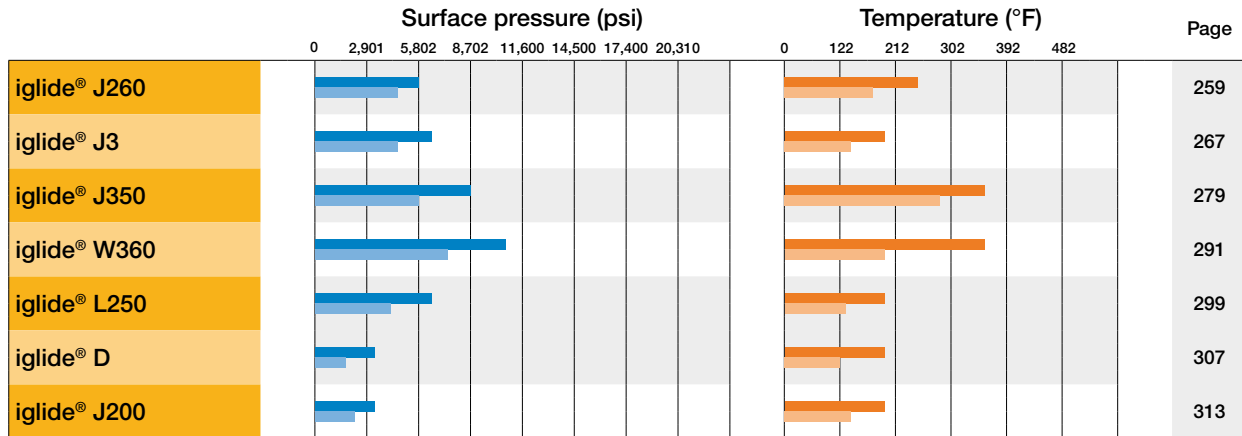


Economic

	Low water absorption	For under water use	Edge pressure	Vibrations dampening	Food suitable	Temperatures up to +194°F	Temperatures up to +302°F	Economic
iglide® J260	●					●		●
iglide® J3	●		●			●		
iglide® J350	●		●			●	●	
iglide® W360	●					●	●	●
iglide® L250			●			●		
iglide® D	●		●			●		●
iglide® J200	●		●			●		

iglide® Bearings - Selection Guide - Main Properties

For long service life

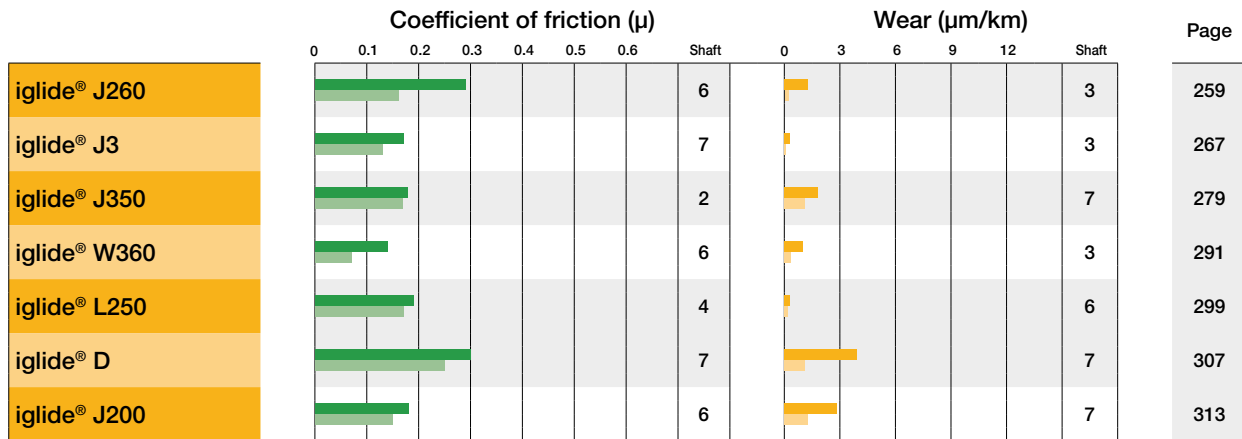


Maximum permissible surface pressure of iglide® bearings at

- +68 °F
- +176 °F

Important temperature limits of iglide® bearings

- Maximum permissible application temperature, continuous
- Temperature where bearings need to be secured against radial or axial movement in the housing



Coefficients of friction of iglide® bearings against steel rotating, p = 145 psi v = 59 fpm

- Average of all the seven sliding combinations tested
- Coefficient of friction of best combination

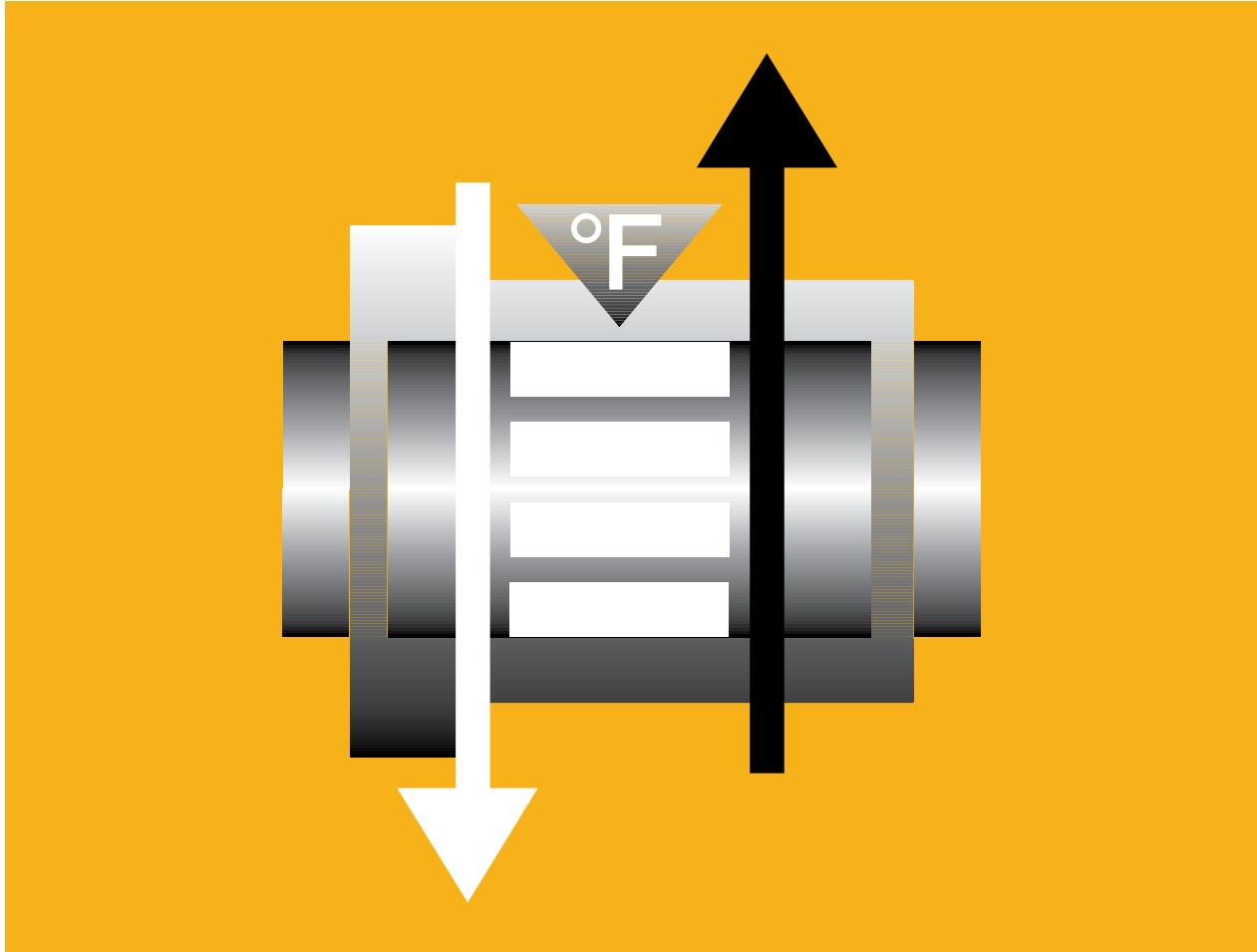
Wear of iglide® bearings against steel rotating, p = 145 psi

- Average of all the seven sliding combinations tested
- Wear of best combination



Shaft material:

1 = 1050, case hardened	4 = Free-cutting steel	7 = 440B Stainless
2 = 1050, case hardened steel, chromed	5 = Machinery Steel	
3 = Hard anodized aluminum	6 = 304 Stainless	



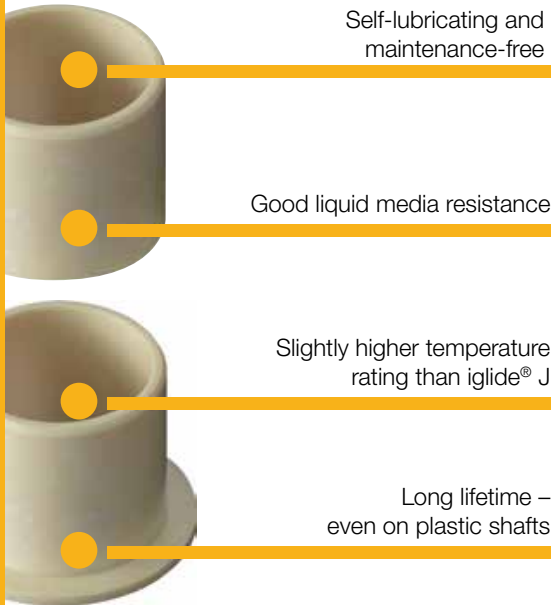
iglide[®] J260

- Very good coefficient of friction for low to medium loads
- Good liquid media resistance
- Slightly higher temperature rating than iglide[®] J
- Long lifetime on plastic shafts

iglide®
J260

iglide® J260 - Ideal for plastic shafts

Good wear resistance at medium loads



iglide® J260 is a perfect material for long service life and best coefficient of friction with special operating conditions such as contact with plastic shafts.



- When plastic shafts are used
- When the temperature rating of iglide® J is not sufficient
- If bearings with low friction are required
- If good wear resistance is required at medium loads
- If liquid media resistance is required



- When high pressures occur
 - iglide® Z
- When short term temperatures are greater than 248°F
 - iglide® J350
- When a low cost bearing for occasional movements is necessary
 - iglide® J



Available from stock

Detailed information about delivery time online.



max. +248°F

min. -148°F



Price breaks online

No minimum order.



Ø 6 to 20 mm

more dimensions on request



Typical application areas

- Automation
- Machine design
- Robotics
- Electronics industry
- Test engineering and quality assurance

iglide® J260 - Technical Data

 iglide®
J260

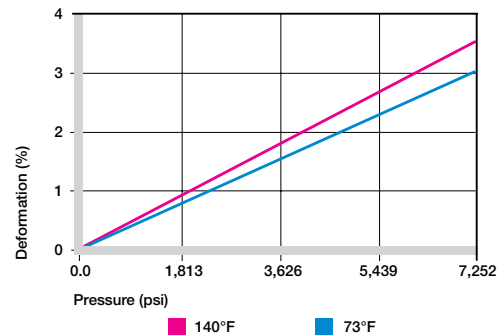
Material Properties Table

General Properties	Unit	iglide® J260	Testing Method
Density	g/cm ³	1.35	
Color		yellow	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.2	DIN 53495
Max. moisture absorption	% weight	0.4	
Coefficient of friction, dynamic against steel	μ	0.06 - 0.20	
pv value, max. (dry)	psi x fpm	10,000	
Mechanical Properties			
Modulus of elasticity	psi	319,100	DIN 53457
Tensile strength at 68°F	psi	8,702	DIN 53452
Compressive strength	psi	7,252	
Permissible static surface pressure (68°F)	psi	5,802	
Shore D-hardness		77	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	248	
Max. application temperature, short-term	°F	284	
Min. application temperature	°F	-148	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	13	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹²	DIN IEC 93
Surface resistance	Ω	> 10 ¹⁰	DIN 53482

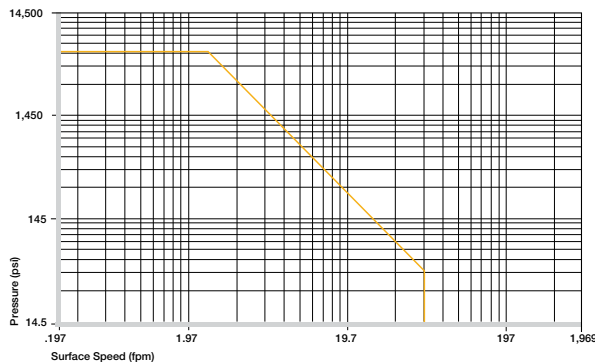
Compressive Strength

The graph shows the elastic deformation of iglide® J260 during radial loading. At the recommended maximum surface pressure of 5,802 psi the deformation is less than 2.5%. The plastic deformation is minimal up to a pressure of approximately 14,500 psi. However, it is also dependent on the cycle time.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® J260 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® J260 has been developed for low to medium surface speeds. The maximum values shown in the table can only be achieved at low pressure. At the given speeds, friction can cause a temperature increase to maximum permissible levels. In practice though, this temperature level is rarely reached, due to varying application conditions.

► Surface speed, Page 64

► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	197	393
Oscillating	137	275
Linear	591	787

Maximum surface speeds

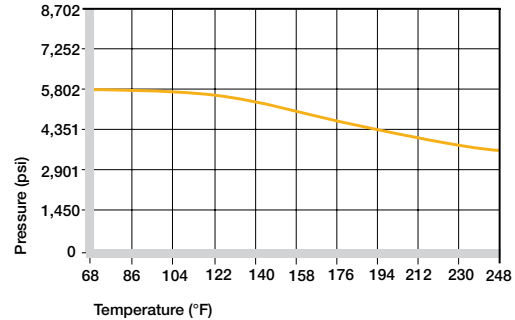
iglide®
J260

iglide® J260 - Technical Data

Temperatures

iglide® J260 plain bearings can be used at temperatures from -148°F up to 248°F. The short-term maximum temperature is 284°F. The temperature in an application also has an effect on the bearing wear. With increasing temperatures, the wear increases and this effect is significant when temperatures rise over 176°F.

► Application temperatures, Page 67



Recommended maximum permissible static surface pressure of iglide® J260 as a result of the temperature

iglide® J260	Application Temperature
Minimum	- 148°F
Max. long-term	+248°F
Max. short-term	+284°F
Additional axial securing	+176°F

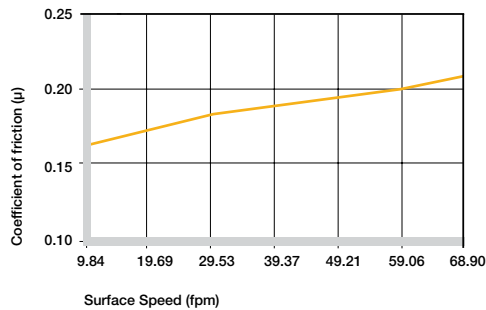
Temperature limits for iglide® J260

Friction and Wear

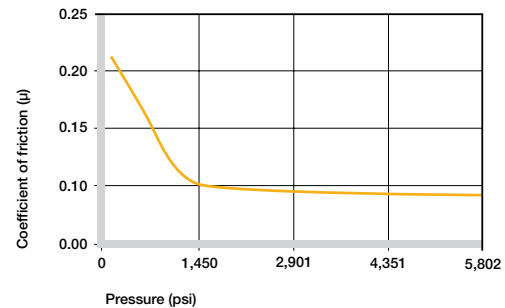
Similar to wear resistance, the coefficient of friction μ also changes with the load. The coefficient of friction decreases with increasing loads, whereas an increase in surface speed causes an increase of the coefficient of friction.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® J260 as a function of the running speed; p = 108 psi



Coefficients of friction of iglide® J260 as a function of the load, v = 1.96 fpm

iglide® J260	Coefficient of Friction
Dry	0.06 - 0.20
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® J260 against steel
(Shaft finish = 40 rms, 50 HRC)

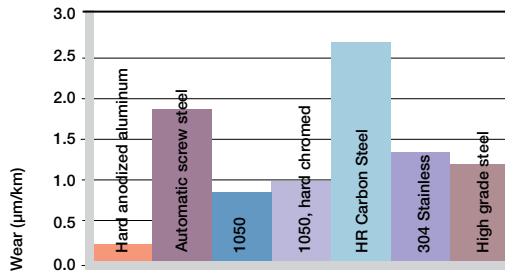
iglide® J260 - Technical Data

iglide®
J260

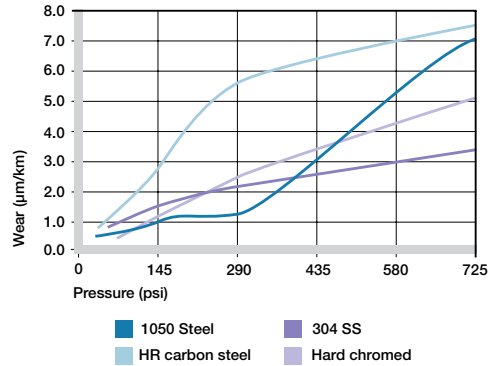
Shaft Materials

The graphs show the results of testing different shaft materials with plain bearings made of iglide® J260. The graph below shows that iglide® J260 can be combined with various shaft materials. The hard anodized aluminum shafts perform the best at low loads, but iglide® J260 bearings show good service life even on simple 1050 stainless steel and hard chromed shafts. In this connection it is important to note that with increasing loads the recommended hardness of the shaft increases. The soft shafts tend to wear more easily and therefore increase the wear of the overall system, if the loads exceed 290 psi. The graph top right shows that with increasing load the wear on hard-chromed shafts and 304 stainless rises less strongly than on 1050 and HR carbon steel shafts. The comparison of rotation and oscillating in the graph lower right makes it very clear where iglide® J260 bearings are best used, especially in rotary operations.

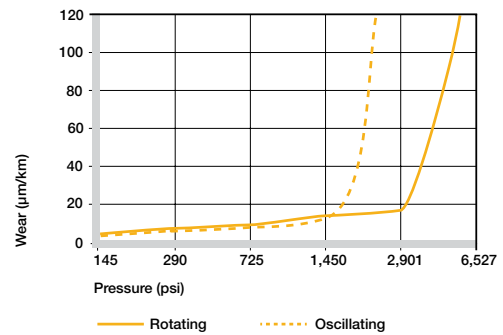
► Shaft Materials, Page 71



Wear of iglide® J260, rotating applications with different shaft materials, p = 145 psi, v = 59 fpm



Wear of iglide® J260 with different shaft materials in rotational applications

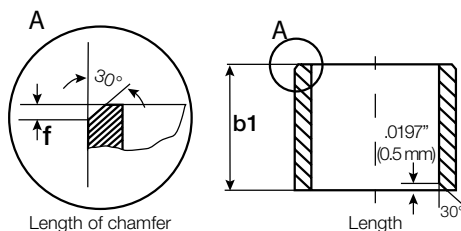


Wear with different shaft materials, oscillating and rotating movement p = 290 psi

Installation Tolerances

iglide® J260 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

- Tolerance table, Page 75
- Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance

iglide® J260 plain bearings are resistant to diluted alkalis, hydrocarbons and alcohols. The very low moisture absorption also permits use in wet or damp environments.

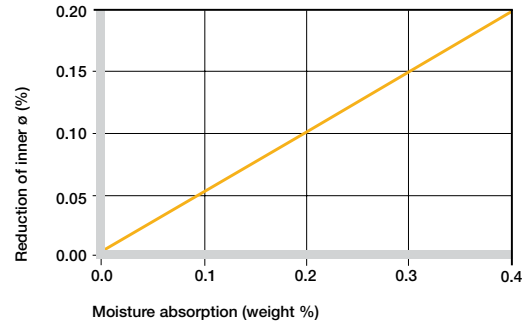
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+ to 0
Hydrocarbon	+
Greases, oils without additives	0 to -
Fuels	-
Weak acids	-
Strong acids	-
Weak alkaline	+ to 0
Strong alkaline	+ to 0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® J260

All data given concerns the chemical resistance at room temperature (68°F).



Effect of moisture absorption on iglide® J260 plain bearings

Radiation Resistance

Plain bearings made from iglide® J260 are radiation resistant up to an intensity of 3×10^2 Gy.

UV-Resistance

iglide® J260 plain bearings are partially resistant to UV radiation.

Vacuum

In a vacuum, any moisture absorbed in the material would be outgassed. For this reason only dehumidified iglide® J260 are suitable for vacuum use.

Electrical Properties

iglide® J260 plain bearings are electrically insulating.

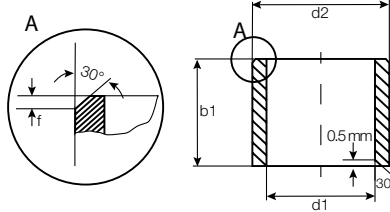
iglide® J260	
Specific volume resistance	> 10^{12} Ω cm
Surface resistance	> 10^{10} Ω

Electrical properties of iglide® J260

iglide® J260 - Product Range

Sleeve bearing - Metric

iglide®
J260



Order key

Type	Dimensions
J260 S	M-04 05-04

iglide® material

Form S (sleeve)

Metric

Inner-Ø d1 (mm)

Outer-Ø d2 (mm)

Length b1 (mm)

For tolerance values
please refer to page 263

Dimensions according to ISO 3547-1 and special dimensions

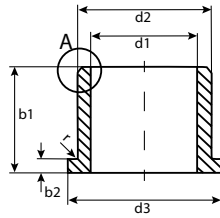
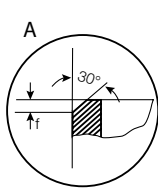
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
J260SM-0608-06	6.0	8.0	6.0	6.020	6.068	8.000	8.015	5.970	6.000
J260SM-0810-06	8.0	10.0	6.0	8.025	8.083	10.000	10.015	7.964	8.000
J260SM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
J260SM-1012-10	10.0	12.0	10.0	10.025	10.083	12.000	12.018	9.964	10.000
J260SM-1214-12	12.0	14.0	12.0	12.032	12.102	14.000	14.018	11.957	12.000
J260SM-1214-15	12.0	14.0	15.0			14.000	14.018	11.957	12.000
J260SM-1618-15	16.0	18.0	15.0	16.032	16.102	18.000	18.018	15.957	16.000
J260SM-1618-135	16.0	18.0	13.5			18.000	18.018	15.957	16.000
J260SM-1820-12	18.0	20.0	12.0	18.032	18.102	20.000	20.021	17.957	18.000
J260SM-1820-20	18.0	20.0	20.0			20.000	20.021	17.957	18.000
J260SM-2023-20	20.0	23.0	20.0	20.040	20.124	23.000	23.021	19.948	20.000

iglide®
J260

iglide® J260 - Product Range

Flange bearing - Metric



Order key

Type	Dimensions
J260 F M	-06 08-04
iglide® material	Form F (flange)
	Metric
	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

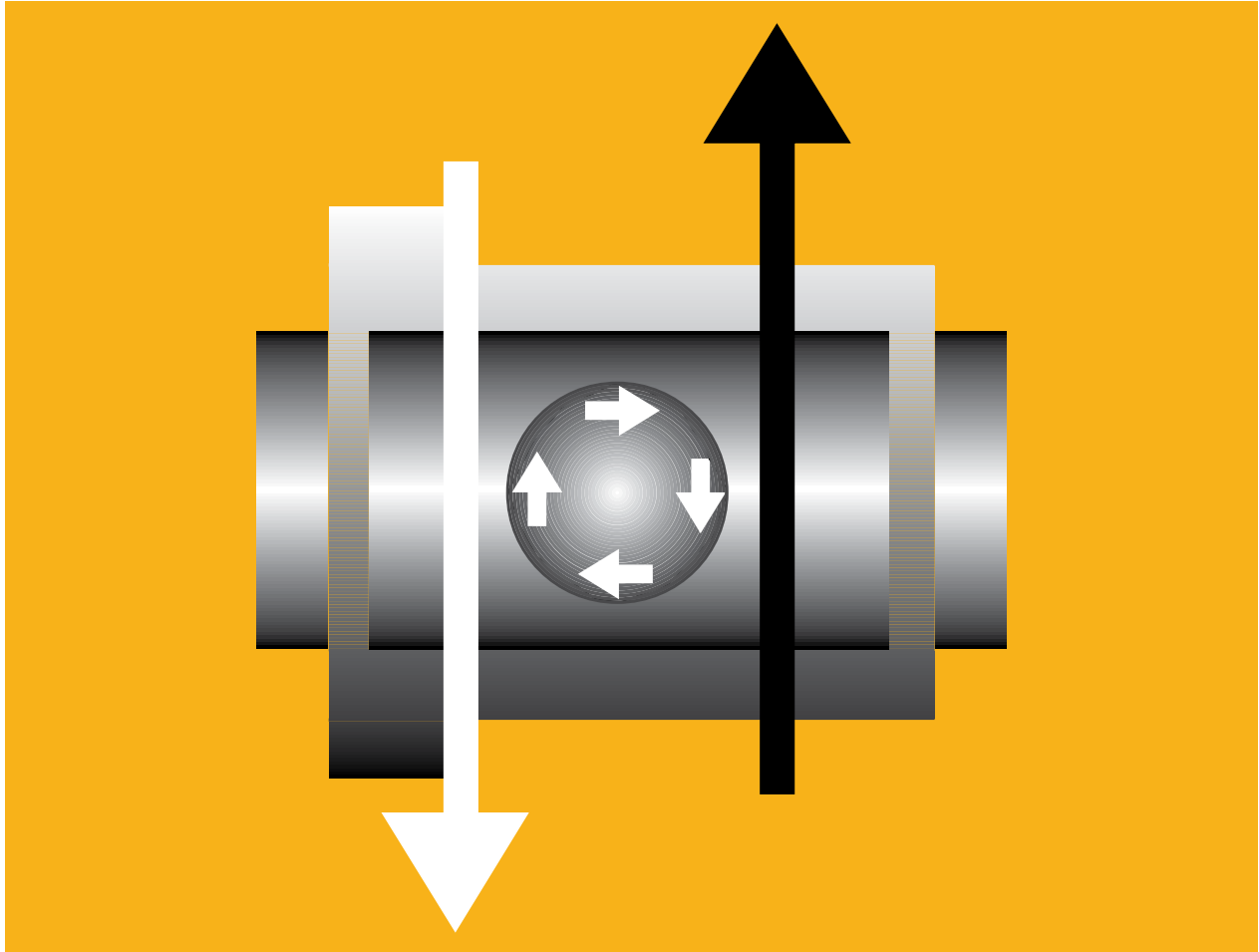
$r = \max. 0.5$

For tolerance values
please refer to page 263

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max..	Min.	Max.	Min.	Max.
J260FM-0608-06	6.0	8.0	12.0	6.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
J260FM-0810-10	8.0	10.0	15.0	10.0	1.0	8.025	8.083	10.000	10.015	7.964	8.000
J260FM-1012-10	10.0	12.0	18.0	10.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
J260FM-1214-12	12.0	14.0	20.0	12.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
J260FM-1618-17	16.0	18.0	24.0	17.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
J260FM-2023-21	20.0	23.0	30.0	21.5	1.5	20.040	20.124	23.000	23.021	19.948	20.000



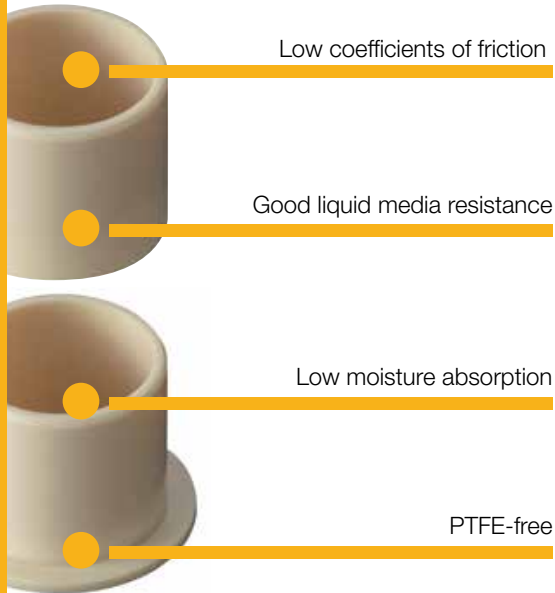
iglide® J3

- Low coefficient of friction
- Good liquid media resistance
- Low moisture absorption
- PTFE-free

iglide®
J3

iglide® J3 - Triple the service life compared to iglide® J

Low coefficients of friction



iglide® J3 is a material with improved wear resistance at low to medium loads and high speed. The lifetime is up to 300% longer than iglide® J



- If wear resistance (rotating or oscillating) of iglide® J should be optimized
- If a very low coefficient of friction dry running is necessary
- If high wear resistance at low temperatures is required
- If low moisture absorption is requested
- If good liquid media resistance is required



- If you need a wear resistant bearing for linear motion
 - iglide® J
- If permanent temperatures exceed 194°F
 - iglide® J260
- If radial surface pressure is higher than 5,076 psi
 - iglide® L280



Available from stock

Detailed information about delivery time online.



max. +194°F
min. -58°F



Price breaks online

No minimum order.



Ø 2 to 50 mm
more dimensions on request



Typical application areas

- Automation
- Printing industry
- Beverage technology
- Glass industry
- Aerospace engineering

iglide® J3 - Technical Data

 iglide®
J3

Material Properties Table

General Properties	Unit	iglide® J3	Testing Method
Density	g/cm ³	1.42	
Color		yellow	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.3	DIN 53495
Max. moisture absorption	% weight	1.3	
Coefficient of friction, dynamic against steel	μ	0.06 - 0.20	
pv value, max. (dry)	psi x fpm	14,000	

Mechanical Properties			
Modulus of elasticity	psi	391,600	DIN 53457
Tensile strength at 68°F	psi	10,150	DIN 53452
Compressive strength	psi	8,702	
Permissible static surface pressure (68°F)	psi	6,527	
Shore D-hardness		73	DIN 53505

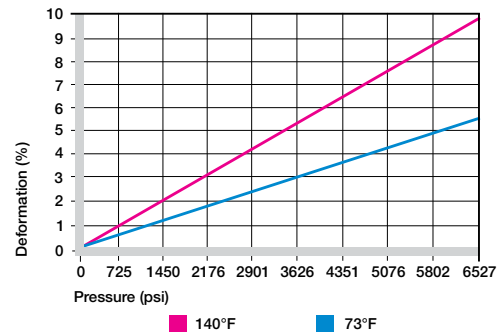
Physical and Thermal Properties			
Max. long-term application temperature	°F	194	
Max. application temperature, short-term	°F	248	
Min. application temperature	°F	-58	
Thermal conductivity	W/m x K	0.25	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	13	DIN 53752

Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹²	DIN IEC 93
Surface resistance	Ω	> 10 ¹²	DIN 53482

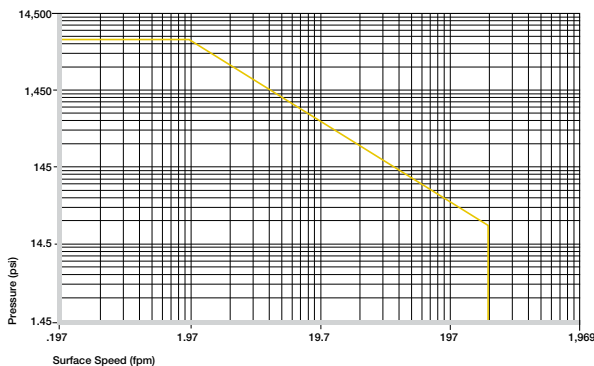
Compressive Strength

The graph shows the elastic deformation of iglide® J3 with radial loads. Under the maximum recommended surface pressure of 6527 psi, the deformation is less than 6%. The plastic deformation is minimal up to a pressure of approximately 14,500 psi. The possible plastic deformation depends on the applied pressure, as well as other external factors.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® J3 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® J3 has been developed for medium to high surface speeds. The maximum values shown in the table can only be achieved at low pressure. At the given speeds, friction can cause a temperature increase to maximum permissible levels. In practice though, this temperature level is rarely reached, due to varying application conditions.

► Surface speed, Page 64
 ► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	295	591
Oscillating	216	413
Linear	1575	1969

Maximum surface speeds

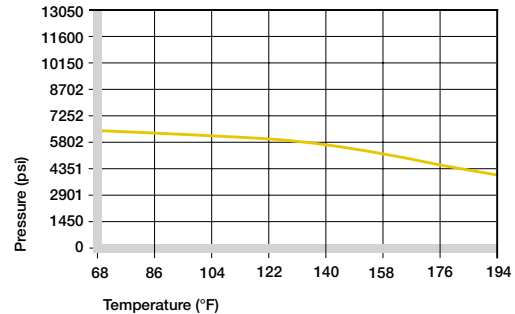
iglide®
J3

iglide® J3 - Technical Data

Temperatures

iglide® J3 plain bearings can be used at temperatures from -58°F up to 194°F. The short-term maximum temperature is 248°F. The temperature in an application also has an effect on the bearing wear. With increasing temperatures, the wear increases and this effect is significant when temperatures rise over 194°F.

► Application temperatures, Page 67



Recommended maximum permissible static surface pressure of iglide® J3 as a result of the temperature

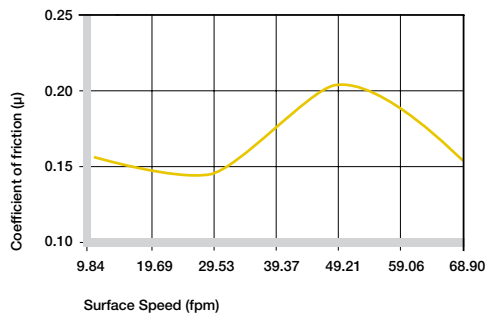
iglide® J3	Application Temperature
Minimum	- 58°F
Max. long-term	+194°F
Max. short-term	+248°F
Additional axial securing	+140°F

Temperature limits for iglide® J3

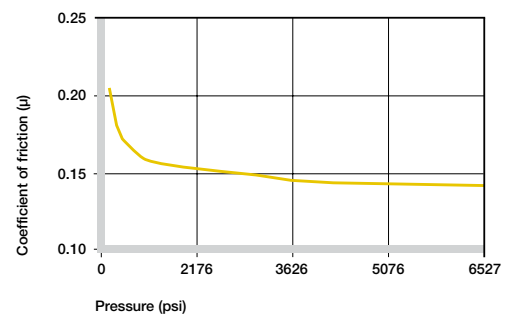
Friction and Wear

Similar to wear resistance, the coefficient of friction changes greatly with increasing load.

- Coefficients of friction and surfaces, Page 68
- Wear resistance, Page 69



Coefficients of friction of iglide® J3 as a function of the running speed; p = 108 psi



Coefficients of friction of iglide® J3 as a function of the load, v = 1.96 fpm

iglide® J3	Coefficient of Friction
Dry	0.06 - 0.20
Grease	0.09
Oil	0.04
Water	0.04

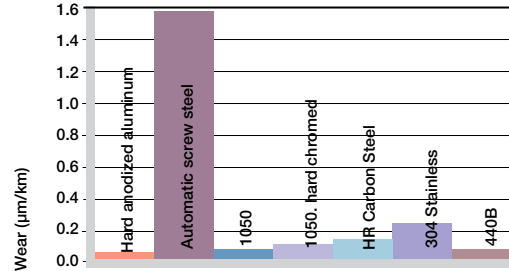
Coefficient of friction of iglide® J3 against steel (Shaft finish = 40 rms, 50 HRC)

iglide® J3 - Technical Data

iglide®
J3

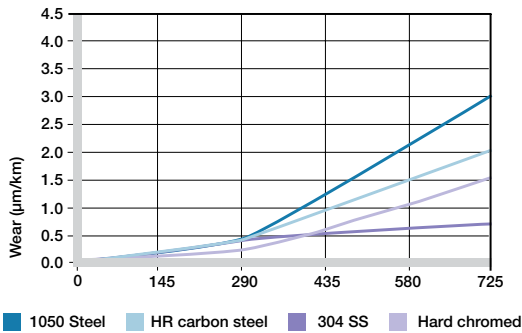
Shaft Materials

The graphs show the results of testing different shaft materials with plain bearings made of iglide® J3. The graph below shows that iglide® J3 can be combined with various shaft materials. At low pressures, hard anodized aluminum shafts, 440B Steel and 1050 steel shafts proved to be the best. But even in combination with other shaft materials, except for free cutting steel, iglide® J3 bearings achieve excellent wear values. The graph to the right shows that the difference between shaft materials increase with increasing loads. Hard chromed or 304 stainless shafts are best at pressures from 290 psi in rotation movement. The graph below right shows rotating and oscillating tests in comparison. With higher load, the wear increases more for rotating than for oscillating movements.

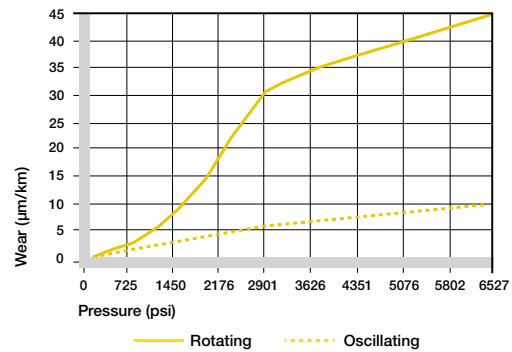


Wear of iglide® J3, rotating applications with different shaft materials, p = 108 psi, v = 98 fpm

► Shaft Materials, Page 71



Wear of iglide® J3 with different shaft materials in rotational applications

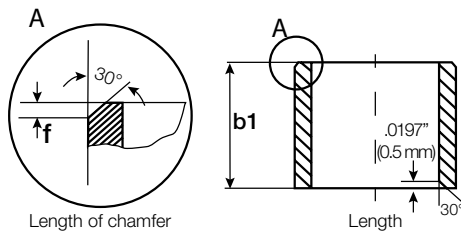


Wear with different shaft materials, oscillating and rotating movement p = 290 psi

Installation Tolerances

iglide® J3 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance

iglide® J3 bearings are resistant to diluted alkalis and very weak acids as well as fuels and all kinds of lubricants. The low humidity absorption allows them to be used in wet or humid environments. iglide® J3 bearings are also resistant to conventional detergents used in the food industry.

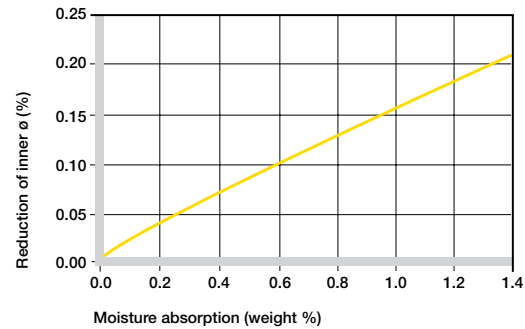
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to -
Strong acids	-
Weak alkaline	+
Strong alkaline	+ to 0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® J3

All data given concerns the chemical resistance at room temperature (68°F)



Effect of moisture absorption on iglide® J3 plain bearings

Radiation Resistance

Plain bearings made from iglide® J3 are radiation resistant up to an intensity of 1×10^4 Gy.

UV-Resistance

iglide® J3 plain bearings become discolored under UV radiation. However, hardness, compressive strength and the wear resistance of the material do not change.

Vacuum

In vacuum applications, any absorbed moisture content is outgassed. For this reason only dehumidified iglide® J3 bearings are suitable for use in a vacuum.

Electrical Properties

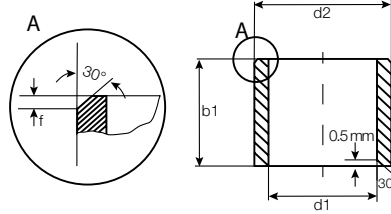
iglide® J3 plain bearings are electrically insulating.

iglide® J3	
Specific volume resistance	$> 10^{12} \Omega\text{cm}$
Surface resistance	$> 10^{12} \Omega$

Electrical properties of iglide® J3

iglide® J3 - Product Range

Sleeve bearing - Metric

 iglide®
J3

Order key

Type	Dimensions
J3 S M -04 05 -04	
iglide® material	Form S (sleeve)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

 For tolerance values
 please refer to page 271

Dimensions according to ISO 3547-1 and special dimensions

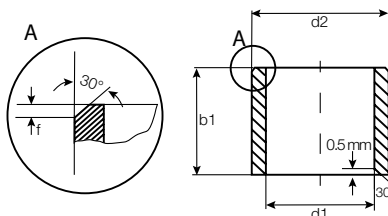
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
J3SM-0304-05	3.0	4.5	5.0	3.014	3.054	4.500	4.512	2.975	3.000
J3SM-0405-04	4.0	5.5	4.0	4.020	4.068	5.500	5.512	3.970	4.000
J3SM-0405-06	4.0	5.5	6.0			5.500	5.512	3.970	4.000
J3SM-0507-05	5.0	7.0	5.0	5.020	5.068	7.000	7.015	4.970	5.000
J3SM-0507-10	5.0	7.0	10.0			7.000	7.015	4.970	5.000
J3SM-0608-06	6.0	8.0	6.0	6.020	6.068	8.000	8.015	5.970	6.000
J3SM-0608-08	6.0	8.0	8.0			8.000	8.015	5.970	6.000
J3SM-0608-10	6.0	8.0	10.0			8.000	8.015	5.970	6.000
J3SM-0810-08	8.0	10.0	8.0	8.025	8.083	10.000	10.015	7.964	8.000
J3SM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
J3SM-0810-12	8.0	10.0	12.0			10.000	10.015	7.964	8.000
J3SM-1012-08	10.0	12.0	8.0	10.025	10.083	12.000	12.018	9.964	10.000
J3SM-1012-10	10.0	12.0	10.0			12.000	12.018	9.964	10.000
J3SM-1012-12	10.0	12.0	12.0			12.000	12.018	9.964	10.000
J3SM-1012-15	10.0	12.0	15.0			12.000	12.018	9.964	10.000
J3SM-1012-20	10.0	12.0	20.0			12.000	12.018	9.964	10.000
J3SM-1214-10	12.0	14.0	10.0	12.032	12.102	14.000	14.018	11.957	12.000
J3SM-1214-12	12.0	14.0	12.0			14.000	14.018	11.957	12.000
J3SM-1214-15	12.0	14.0	15.0			14.000	14.018	11.957	12.000
J3SM-1214-20	12.0	14.0	20.0			14.000	14.018	11.957	12.000
J3SM-1315-10	13.0	15.0	10.0	13.032	13.102	15.000	15.018	12.957	13.000
J3SM-1315-20	13.0	15.0	20.0			15.000	15.018	12.957	13.000
J3SM-1416-15	14.0	16.0	15.0	14.032	14.102	16.000	16.018	13.957	14.000
J3SM-1416-20	14.0	16.0	20.0			16.000	16.018	13.957	14.000
J3SM-1416-25	14.0	16.0	25.0			16.000	16.018	13.957	14.000
J3SM-1517-15	15.0	17.0	15.0	15.032	15.102	17.000	17.018	14.957	15.000
J3SM-1517-20	15.0	17.0	20.0			17.000	17.018	14.957	15.000
J3SM-1517-25	15.0	17.0	25.0			17.000	17.018	14.957	15.000
J3SM-1517-30	15.0	17.0	30.0			17.000	17.018	14.957	15.000
J3SM-1618-15	16.0	18.0	15.0	16.032	16.102	18.000	18.018	15.957	16.000
J3SM-1618-20	16.0	18.0	20.0			18.000	18.018	15.957	16.000
J3SM-1618-25	16.0	18.0	25.0			18.000	18.018	15.957	16.000
J3SM-1820-15	18.0	20.0	15.0	18.032	18.102	20.000	20.021	17.957	18.000
J3SM-1820-20	18.0	20.0	20.0			20.000	20.021	17.957	18.000
J3SM-1820-25	18.0	20.0	25.0			20.000	20.021	17.957	18.000
J3SM-1821-25	18.0	21.0	25.0			18.032	18.102	21.000	21.021
J3SM-2023-10	20.0	23.0	10.0	20.040	20.124	23.000	23.021	19.948	20.000

iglide®
J3

iglide® J3 - Product Range

Sleeve bearing - Metric



Order key

Type	Dimensions
J3	S M -04 05 -04
iglide® material	Form S (sleeve)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

For tolerance values please refer to page 271

Dimensions according to ISO 3547-1 and special dimensions

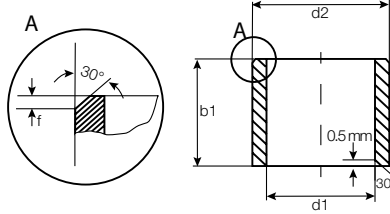
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
J3SM-2023-15	20.0	23.0	15.0	20.040	20.124	23.000	23.021	19.948	20.000
J3SM-2023-20	20.0	23.0	20.0			23.000	23.021	19.948	20.000
J3SM-2023-25	20.0	23.0	25.0			23.000	23.021	19.948	20.000
J3SM-2023-30	20.0	23.0	30.0			23.000	23.021	19.948	20.000
J3SM-2225-15	22.0	25.0	15.0	22.040	22.124	25.000	25.021	21.948	22.000
J3SM-2225-20	22.0	25.0	20.0			25.000	25.021	21.948	22.000
J3SM-2225-25	22.0	25.0	25.0			25.000	25.021	21.948	22.000
J3SM-2225-30	22.0	25.0	30.0			25.000	25.021	21.948	22.000
J3SM-2427-15	24.0	27.0	15.0	24.040	24.124	27.000	27.021	23.948	24.000
J3SM-2427-20	24.0	27.0	20.0			27.000	27.021	23.948	24.000
J3SM-2427-25	24.0	27.0	25.0			27.000	27.021	23.948	24.000
J3SM-2427-30	24.0	27.0	30.0			27.000	27.021	23.948	24.000
J3SM-2528-15	25.0	28.0	15.0	25.040	25.124	28.000	28.021	24.948	25.000
J3SM-2528-20	25.0	28.0	20.0			28.000	28.021	24.948	25.000
J3SM-2528-25	25.0	28.0	25.0			28.000	28.021	24.948	25.000
J3SM-2528-30	25.0	28.0	30.0			28.000	28.021	24.948	25.000
J3SM-2832-20	28.0	32.0	20.0	28.040	28.124	32.000	32.025	27.948	28.000
J3SM-2832-25	28.0	32.0	25.0			32.000	32.025	27.948	28.000
J3SM-2832-30	28.0	32.0	30.0			32.000	32.025	27.948	28.000
J3SM-3034-20	30.0	34.0	20.0	30.040	30.124	34.000	34.025	29.948	30.000
J3SM-3034-25	30.0	34.0	25.0			34.000	34.025	29.948	30.000
J3SM-3034-30	30.0	34.0	30.0			34.000	34.025	29.948	30.000
J3SM-3034-40	30.0	34.0	40.0			34.000	34.025	29.948	30.000
J3SM-3236-20	32.0	36.0	20.0	32.050	32.150	36.000	36.025	31.938	32.000
J3SM-3236-30	32.0	36.0	30.0			36.000	36.025	31.938	32.000
J3SM-3236-40	32.0	36.0	40.0			36.000	36.025	31.938	32.000
J3SM-3539-20	35.0	39.0	20.0	35.050	35.150	39.000	39.025	34.938	35.000
J3SM-3539-30	35.0	39.0	30.0			39.000	39.025	34.938	35.000
J3SM-3539-40	35.0	39.0	40.0			39.000	39.025	34.938	35.000
J3SM-3539-50	35.0	39.0	50.0			39.000	39.025	34.938	35.000
J3SM-4044-20	40.0	44.0	20.0	40.050	40.150	44.000	44.025	39.938	40.000
J3SM-4044-30	40.0	44.0	30.0			44.000	44.025	39.938	40.000
J3SM-4044-40	40.0	44.0	40.0			44.000	44.025	39.938	40.000
J3SM-4044-50	40.0	44.0	50.0			44.000	44.025	39.938	40.000
J3SM-4550-20	45.0	50.0	20.0	45.050	45.150	50.000	50.025	44.938	45.000
J3SM-4550-30	45.0	50.0	30.0			50.000	50.025	44.938	45.000
J3SM-4550-40	45.0	50.0	40.0			50.000	50.025	44.938	45.000

iglide® J3 - Product Range

Sleeve bearing - Metric

iglide®
J3



Order key

Type	Dimensions
J3 S M	-04 05-04
iglide® material	Form S (sleeve)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

For tolerance values
please refer to page 271

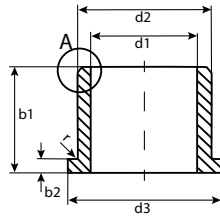
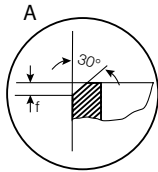
Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
J3SM-4550-50	45.0	50.0	50.0	45.050	45.150	50.000	50.025	44.938	45.000
J3SM-5055-20	50.0	55.0	20.0	50.050	50.150	55.000	55.030	49.938	50.000
J3SM-5055-30	50.0	55.0	30.0			55.000	55.030	49.938	50.000
J3SM-5055-40	50.0	55.0	40.0			55.000	55.030	49.938	50.000
J3SM-5055-50	50.0	55.0	50.0			55.000	55.030	49.938	50.000
J3SM-5055-60	50.0	55.0	60.0			55.000	55.030	49.938	50.000

iglide®
J3

iglide® J3 - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
J3	F M -06 08 -04
iglide® material	Form F (flange)
	Metric
	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

 $r = \max. 0.5$

 For tolerance values
please refer to page 271

Dimensions according to ISO 3547-1 and special dimensions

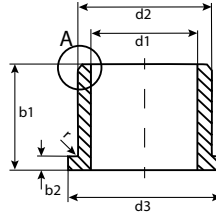
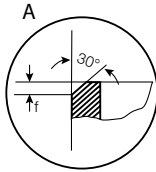
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
J3FM-0203505-05	2.0	3.5	5.0	5.0	0.75	2.014	2.054	3.500	3.512	1.975	2.000
J3FM-0304-05	3.0	4.5	7.5	5.0	0.75	3.014	3.054	4.000	4.012	2.970	3.000
J3FM-0507-05	5.0	7.0	11.0	5.0	1.0	5.020	5.068	7.000	7.015	4.970	5.000
J3FM-0608-04	6.0	8.0	12.0	4.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
J3FM-0608-06	6.0	8.0	12.0	6.0	1.0			8.000	8.015	5.970	6.000
J3FM-0608-08	6.0	8.0	12.0	8.0	1.0			8.000	8.015	5.970	6.000
J3FM-0810-05	8.0	10.0	15.0	5.5	1.0	8.025	8.083	10.000	10.015	7.964	8.000
J3FM-0810-07	8.0	10.0	15.0	7.5	1.0			10.000	10.015	7.964	8.000
J3FM-0810-09	8.0	10.0	15.0	9.5	1.0			10.000	10.015	7.964	8.000
J3FM-0810-10	8.0	10.0	15.0	10.0	1.0			10.000	10.015	7.964	8.000
J3FM-1012-07	10.0	12.0	18.0	7.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
J3FM-1012-09	10.0	12.0	18.0	9.0	1.0			12.000	12.018	9.964	10.000
J3FM-1012-10	10.0	12.0	18.0	10.0	1.0			12.000	12.018	9.964	10.000
J3FM-1012-12	10.0	12.0	18.0	12.0	1.0			12.000	12.018	9.964	10.000
J3FM-1012-17	10.0	12.0	18.0	17.0	1.0			12.000	12.018	9.964	10.000
J3FM-1214-07	12.0	14.0	20.0	7.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
J3FM-1214-09	12.0	14.0	20.0	9.0	1.0			14.000	14.018	11.957	12.000
J3FM-1214-12	12.0	14.0	20.0	12.0	1.0			14.000	14.018	11.957	12.000
J3FM-1214-17	12.0	14.0	20.0	17.0	1.0			14.000	14.018	11.957	12.000
J3FM-1416-12	14.0	16.0	22.0	12.0	1.0	14.032	14.102	16.000	16.018	13.957	14.000
J3FM-1416-17	14.0	16.0	22.0	17.0	1.0			16.000	16.018	13.957	14.000
J3FM-1517-09	15.0	17.0	23.0	9.0	1.0	15.032	15.102	17.000	17.018	14.957	15.000
J3FM-1517-12	15.0	17.0	23.0	12.0	1.0			17.000	17.018	14.957	15.000
J3FM-1517-17	15.0	17.0	23.0	17.0	1.0			17.000	17.018	14.957	15.000
J3FM-1618-12	16.0	18.0	24.0	12.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
J3FM-1618-17	16.0	18.0	24.0	17.0	1.0			18.000	18.018	15.957	16.000
J3FM-1820-12	18.0	20.0	26.0	12.0	1.0	18.032	18.102	20.000	20.021	17.957	18.000
J3FM-1820-17	18.0	20.0	26.0	17.0	1.0			20.000	20.021	17.957	18.000
J3FM-1820-22	18.0	20.0	26.0	22.0	1.0			20.000	20.021	17.957	18.000
J3FM-1821-12	18.0	21.0	30.0	21.5	1.5	18.032	18.102	21.000	21.021	17.957	18.000
J3FM-2023-11	20.0	23.0	30.0	11.5	1.5	20.040	20.124	23.000	23.021	19.948	20.000
J3FM-2023-16	20.0	23.0	30.0	16.5	1.5			23.000	23.021	19.948	20.000
J3FM-2023-21	20.0	23.0	30.0	21.5	1.5			23.000	23.021	19.948	20.000
J3FM-2528-11	25.0	28.0	35.0	11.5	1.5	25.040	25.124	28.000	28.021	24.948	25.000
J3FM-2528-16	25.0	28.0	35.0	16.5	1.5			28.000	28.021	24.948	25.000
J3FM-2528-21	25.0	28.0	35.0	21.5	1.5			28.000	28.021	24.948	25.000
J3FM-3034-16	30.0	34.0	42.0	16.0	2.0	30.040	30.124	34.000	34.025	29.948	30.000

iglide® J3 - Product Range

Flange bearing - Metric

iglide®
J3



Order key

$r = \max. 0.5$

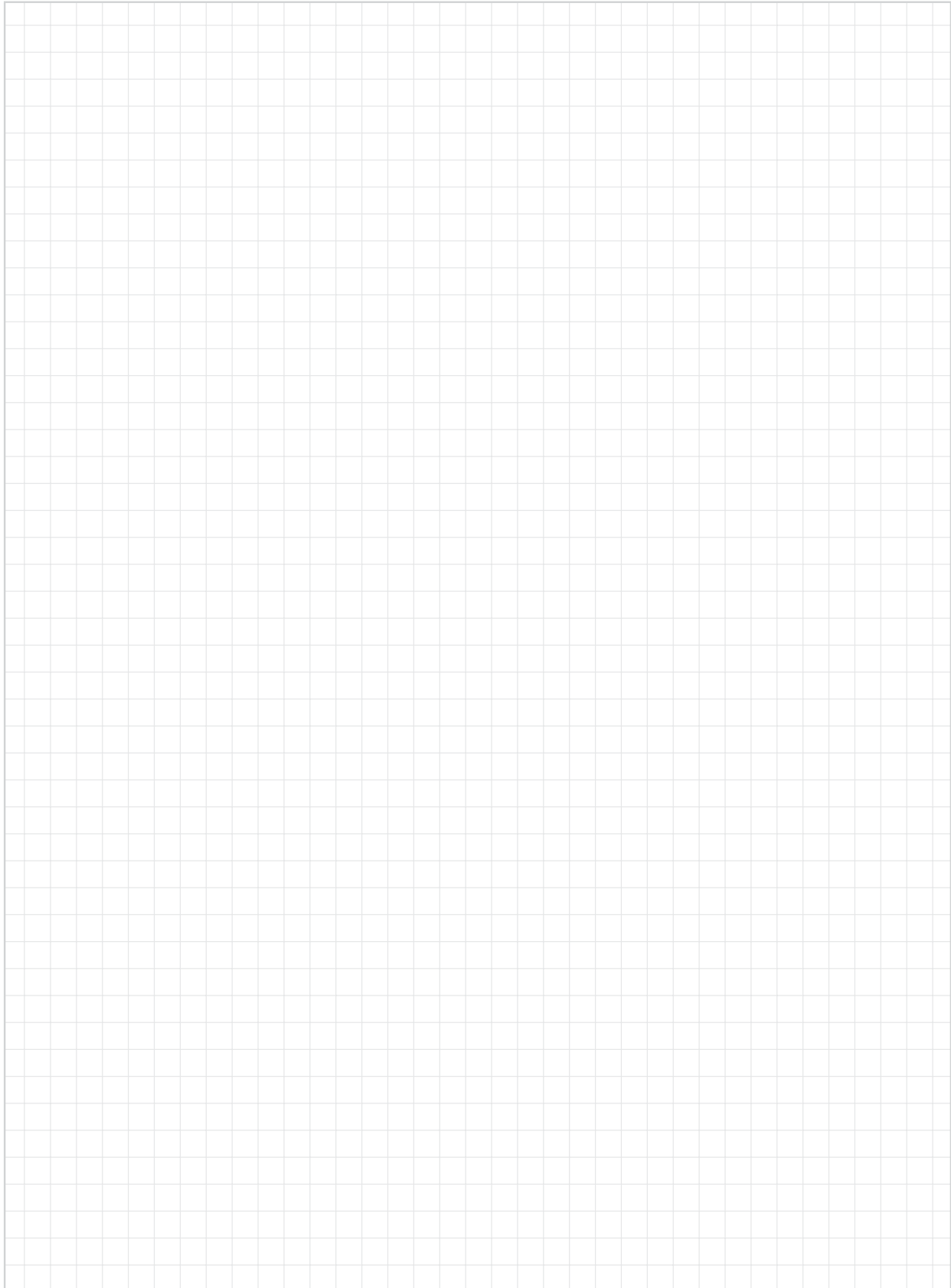
For tolerance values
please refer to page 271

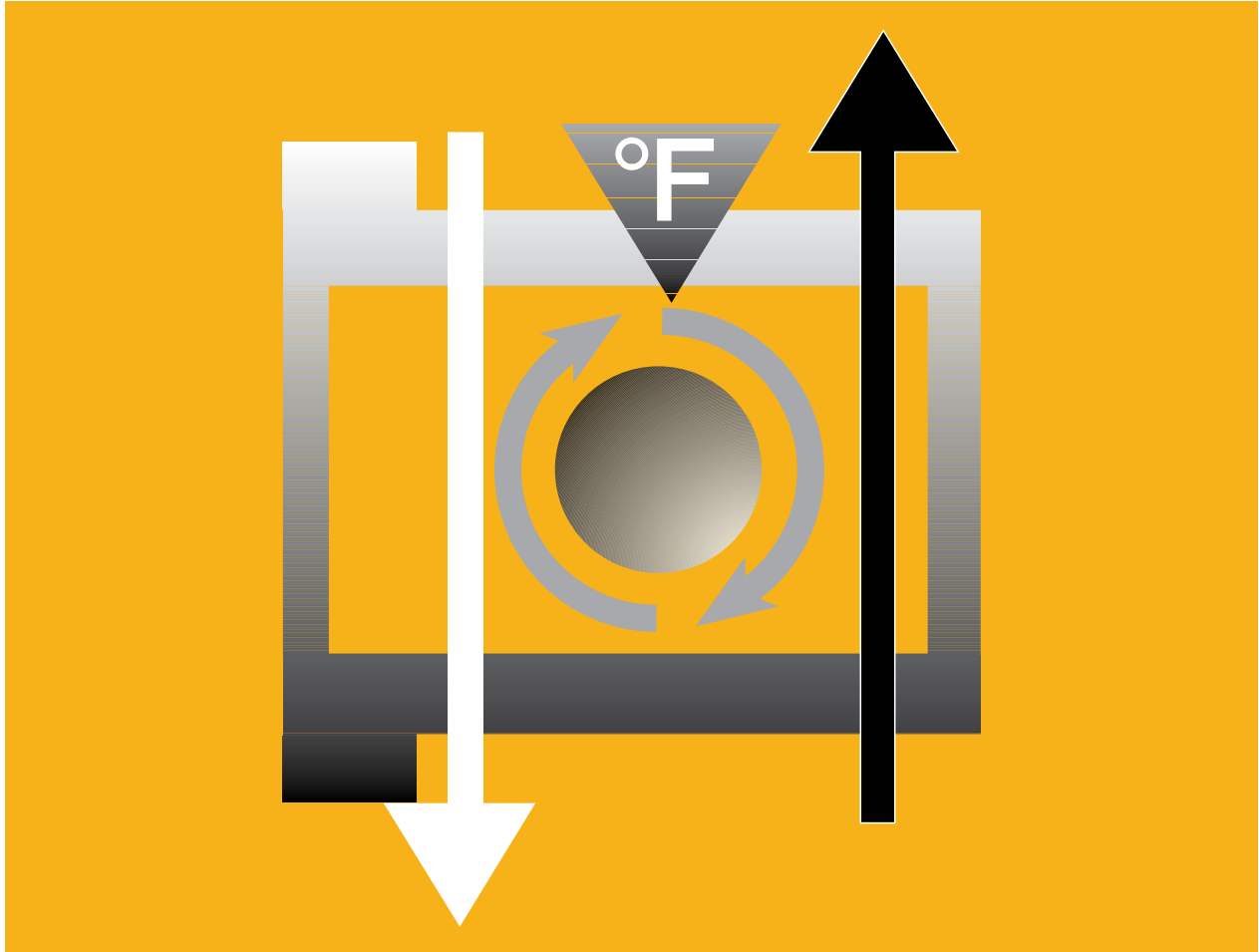
Type		Dimensions	
J3	F M	-06	08-04
iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)
			Outer-Ø d2 (mm)
			Length b1 (mm)

Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max..	Min.	Max.	Min.	Max.
J3FM-3034-26	30.0	34.0	42.0	26.0	2.0	30.040	30.124	34.000	34.025	29.948	30.000
J3FM-3539-16	35.0	39.0	47.0	16.0	2.0	35.050	35.150	39.000	39.025	34.938	35.000
J3FM-3539-26	35.0	39.0	47.0	26.0	2.0			39.000	39.025	34.938	35.000
J3FM-4044-30	40.0	44.0	52.0	30.0	2.0	40.050	40.150	44.000	44.025	39.938	40.000
J3FM-4044-40	40.0	44.0	52.0	40.0	2.0			44.000	44.025	39.938	40.000
J3FM-4550-50	45.0	50.0	58.0	50.0	2.5	45.050	45.150	50.000	50.025	44.938	45.000

Notes





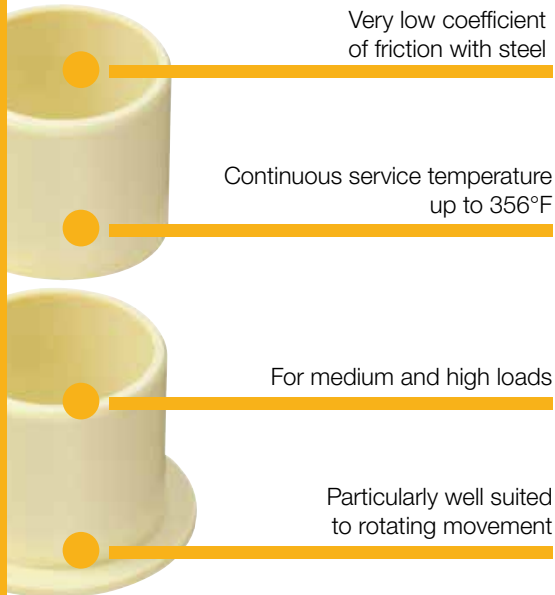
iglide® J350

- Excellent coefficient of friction against steel
- Continuous service temperature up to 356°F
- For medium and high loads
- Ideal in rotational applications

iglide®
J350

iglide® J350 - Triple the service life compared to iglide® J

Low coefficients of friction



Very low coefficient
of friction with steel

Continuous service temperature
up to 356°F

For medium and high loads

Particularly well suited
to rotating movement

An outstanding bearing for rotating applications - and for a wide range of different shaft materials. With iglide® J350 bearings, the lifetime can often be increased for applications between 290 psi and 7,252 psi. In addition, the high temperature resistance makes it a very versatile material.



- If a high wear resistant bearing for rotating movement at medium and high loads is required
- If an economic bearing is required for use at high temperatures
- If temperatures up to 356°F is necessary
- If high wear resistance is required at high loads
- If the bearing is exposed to shock loading
- Excellent coefficient of friction against steel



- If low friction is required
 - iglide® J
- If permanent temperatures exceed 356°F
 - iglide® T500
- When a cost effective bearing with a low friction is needed
 - iglide® D
 - iglide® R
- With high rotational speeds
 - iglide® J



Available from stock

Detailed information about delivery time online.



max. +356°F

min. -148°F



Price breaks online

No minimum order.



Ø 2 to 40 mm

more dimensions on request



Typical application areas

- Automation
- Mechanical engineering
- Vehicle manufacturing
- Glass industry

iglide® J350 - Technical Data

 iglide®
J350

Material Properties Table

General Properties	Unit	iglide® J350	Testing Method
Density	g/cm ³	1.44	
Color		yellow	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.3	DIN 53495
Max. moisture absorption	% weight	1.6	
Coefficient of friction, dynamic against steel	μ	0.10 - 0.20	
pv value, max. (dry)	psi x fpm	13,000	

Mechanical Properties

Modulus of elasticity	psi	290,100	DIN 53457
Tensile strength at 68°F	psi	7,977	DIN 53452
Compressive strength	psi	8,702	
Permissible static surface pressure (68°F)	psi	8,702	
Shore D-hardness		80	DIN 53505

Physical and Thermal Properties

Max. long-term application temperature	°F	356	
Max. application temperature, short-term	°F	428	
Min. application temperature	°F	-148	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	7	DIN 53752

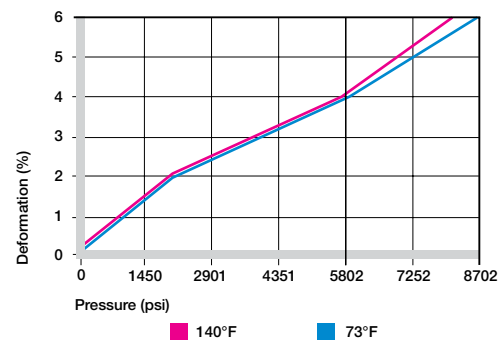
Electrical Properties

Specific volume resistance	Ωcm	> 10 ¹³	DIN IEC 93
Surface resistance	Ω	> 10 ¹⁰	DIN 53482

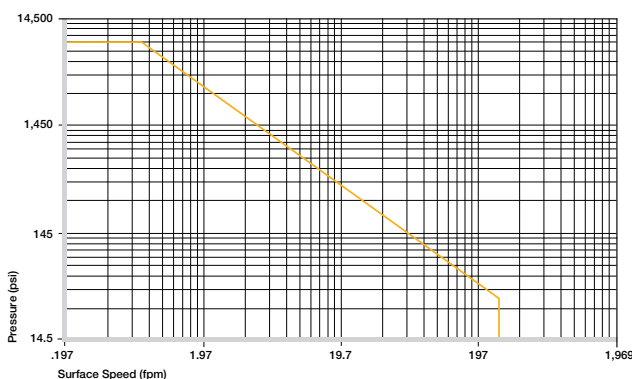
Compressive Strength

iglide® J350 bearings are adequate for medium and high loads. The graph shows the elastic deformation under different temperatures. At the recommended maximum surface pressure of 8702 psi the deformation is less than 6%.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® J350 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® J350 has been developed for low and medium speeds in rotating and oscillating use. The wear rate is much better with rotating movement.

iglide® J350 plain bearings can also be used for linear movement.

- Surface speed, Page 64
- pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	256	591
Oscillating	197	453
Linear	787	1575

Maximum surface speeds

iglide® J350 - Technical Data

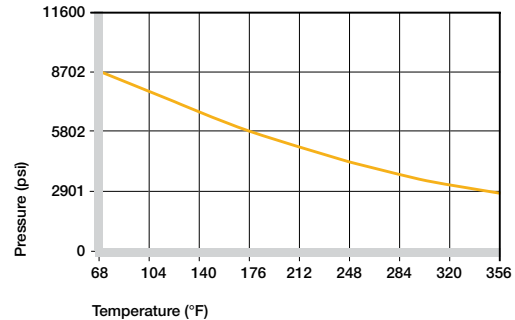
Temperatures

The temperature resistance of iglide® J350 allows universal applications in many different industries. The short term maximum temperature is +428°F. At temperatures above +302°F the bearing should be mechanically fixed in the bore. Higher temperatures may result in a loss of the pressfit of the plain bearings, potentially allowing the bearing to drift within the housing bore.

The wear-rate of iglide® J350 bearings changes very little at high temperatures. In some cases, the wear even decreases at +212°F. Generally, the wear figures between +68°F and +302°F are very similar.

The iglide® J350 is a highly wear-resistant bearing material, which can also be used at higher temperatures. The combination of excellent tribological and thermal properties fills a gap in the group of long life materials.

► Application temperatures, Page 67



Recommended maximum permissible static surface pressure of iglide® J350 as a result of the temperature

iglide® J350	Application Temperature
Minimum	- 148°F
Max. long-term	+356°F
Max. short-term	+428°F
Additional axial securing	+284°F

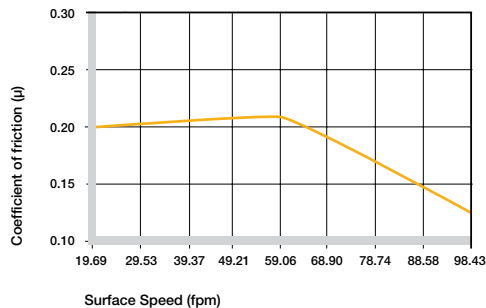
Temperature limits for iglide® J350

Friction and Wear

The coefficient of friction of iglide® J350 in dry operation on a steel shaft is very good. They decrease significantly at higher surface speeds. This benefits the service life of the bearings in continuous operations with high surface speeds. iglide® J350 bearings are clearly superior to other bearing materials in rotating applications over 290 psi.

► Coefficients of friction and surfaces, Page 68

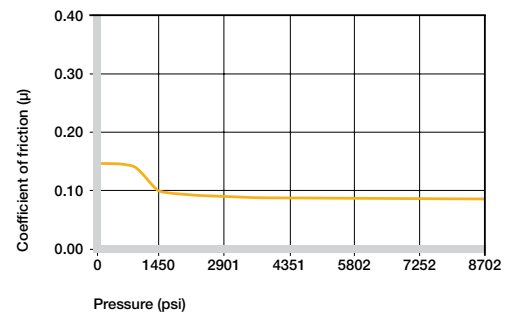
► Wear resistance, Page 69



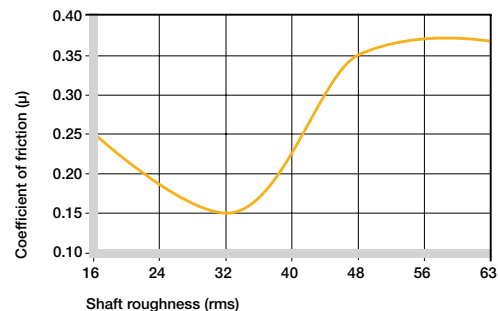
Coefficients of friction of iglide® J350 as a function of the running speed; p = 108 psi

iglide® J350	Coefficient of Friction
Dry	0.10 - 0.20
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® J350 against steel
(Shaft finish = 40 rms, 50 HRC)



Coefficients of friction of iglide® J350 as a function of the load, v = 1.96 fpm



Coefficients of friction of iglide® J350 as a function of the shaft surface (1050 hard chromed)

iglide® J350 - Technical Data

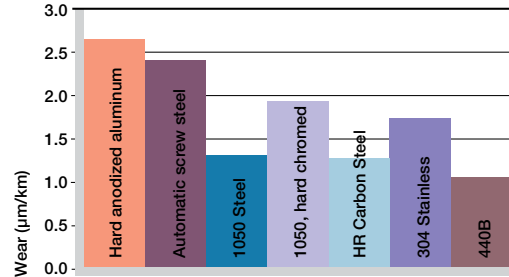
iglide®
J350

Shaft Materials

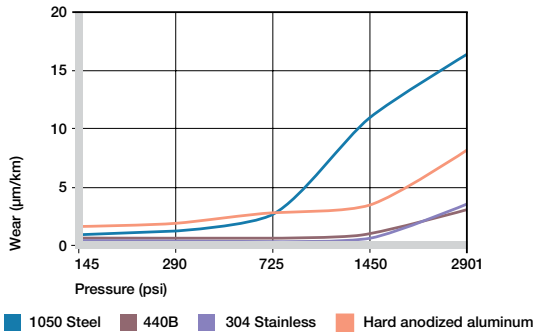
The graphs show results of testing different shaft materials with plain bearings made of iglide® J350. iglide® J350 plain bearings can be combined with various shaft materials.

One shaft – bearing combination stands out when looking at the wear results of the test: iglide® J350 with 304 stainless steel. Not many bearing materials are suitable for use with this rather difficult 304 stainless steel material and achieve good wear results. Also, iglide® J350 shows good properties with hard-anodized aluminum shafts. If the shaft material you plan on using is not shown in these test results, please contact us.

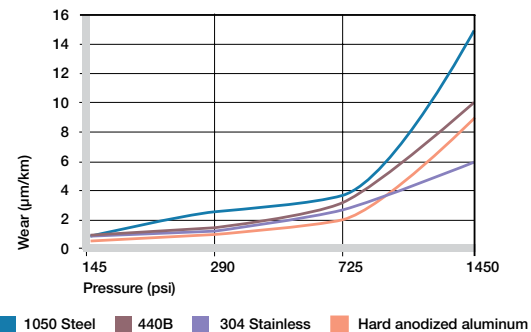
► Shaft Materials, Page 71



Wear of iglide® J350, rotating applications with different shaft materials, p = 145 psi, v = 59 fpm



Wear of iglide® J350 with different shaft materials in rotational applications as a function of the pressure

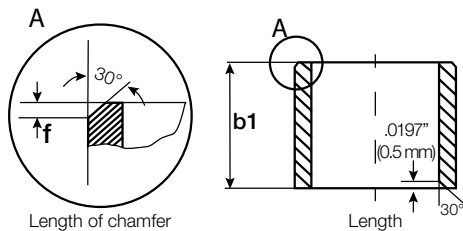


Wear of iglide® J350, oscillating movement of different shaft materials according to applied load

Installation Tolerances

iglide® J350 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 / -0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 / -0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 / -0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 / -0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 / -0.0154	
1.9685 to 3.1496	-0.0000 / -0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 / -140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 / -180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 / -220	f = 0.8 → d ₁ > 12 - 30 mm
> 10 to 18	-0 / -270	f = 1.2 → d ₁ > 30 mm
> 18 to 30	-0 / -330	
> 30 to 50	-0 / -390	
> 50 to 80	-0 / -460	

iglide® J350 - Technical Data

Chemical Resistance

iglide® J350 plain bearings are resistant to diluted alkalis and acids, alcohols, cleaning agents and lubricants. iglide® J350 will be attacked by esters, ketones, chlorinated hydrocarbons, and other solvents.

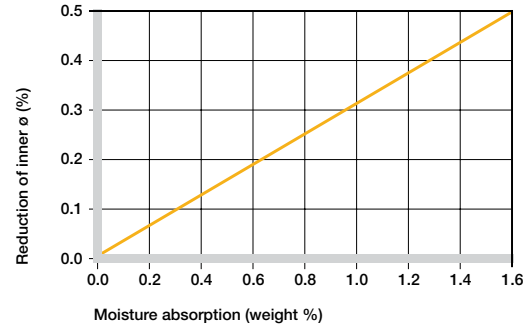
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+ to 0
Greases, oils without additives	+
Fuels	+
Weak acids	+
Strong acids	+ to 0
Weak alkaline	+
Strong alkaline	+

+ resistant, 0 conditionally resistant, – not resistant

Chemical resistance of iglide® J350

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® J350 plain bearings

Radiation Resistance

Plain bearings made from iglide® J350 are radiation resistant up to an intensity of 2×10^2 Gy.

UV-Resistance

iglide® J350 plain bearings are conditionally resistant to UV radiation.

Vacuum

iglide J350 plain bearings outgas in a vacuum. Use in a vacuum environment is only possible with dehumidified bearings.

Electrical Properties

iglide® J350 plain bearings are electrically insulating.

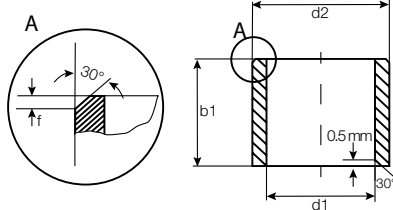
iglide® J350	
Specific volume resistance	> 10^{13} Ωcm
Surface resistance	> 10^{10} Ω

Electrical properties of iglide® J350

iglide® J350 - Product Range

Sleeve bearing - Metric

iglide®
J350



Order key

Type	Dimensions
J350 S	M-04 05-04

iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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For tolerance values
please refer to page 283

Dimensions according to ISO 3547-1 and special dimensions

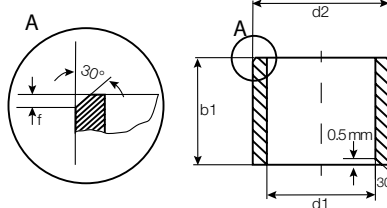
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
J350SM-0405-04	4.0	5.5	4.0	4.010	4.058	5.500	5.512	3.970	4.000
J350SM-0405-06	4.0	5.5	6.0			5.500	5.512	3.970	4.000
J350SM-0507-05	5.0	7.0	5.0	5.010	5.058	7.000	7.015	4.970	5.000
J350SM-0507-10	5.0	7.0	10.0			7.000	7.015	4.970	5.000
J350SM-0608-06	6.0	8.0	6.0	6.010	6.058	8.000	8.015	5.970	6.000
J350SM-0608-08	6.0	8.0	8.0			8.000	8.015	5.970	6.000
J350SM-0608-10	6.0	8.0	10.0			8.000	8.015	5.970	6.000
J350SM-0810-08	8.0	10.0	8.0	8.013	8.071	10.000	10.015	7.964	8.000
J350SM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
J350SM-0810-12	8.0	10.0	12.0			10.000	10.015	7.964	8.000
J350SM-1012-08	10.0	12.0	8.0	10.013	10.071	12.000	12.018	9.964	10.000
J350SM-1012-10	10.0	12.0	10.0			12.000	12.018	9.964	10.000
J350SM-1012-12	10.0	12.0	12.0			12.000	12.018	9.964	10.000
J350SM-1012-15	10.0	12.0	15.0			12.000	12.018	9.964	10.000
J350SM-1012-20	10.0	12.0	20.0			12.000	12.018	9.964	10.000
J350SM-1214-10	12.0	14.0	10.0	12.016	12.086	14.000	14.018	11.957	12.000
J350SM-1214-12	12.0	14.0	12.0			14.000	14.018	11.957	12.000
J350SM-1214-15	12.0	14.0	15.0			14.000	14.018	11.957	12.000
J350SM-1214-20	12.0	14.0	20.0			14.000	14.018	11.957	12.000
J350SM-1315-10	13.0	15.0	10.0	13.016	13.086	15.000	15.018	12.957	13.000
J350SM-1315-20	13.0	15.0	20.0			15.000	15.018	12.957	13.000
J350SM-1416-15	14.0	16.0	15.0	14.016	14.086	16.000	16.018	13.957	14.000
J350SM-1416-20	14.0	16.0	20.0			16.000	16.018	13.957	14.000
J350SM-1416-25	14.0	16.0	25.0			16.000	16.018	13.957	14.000
J350SM-1517-15	15.0	17.0	15.0	15.016	15.086	17.000	17.018	14.957	15.000
J350SM-1517-20	15.0	17.0	20.0			17.000	17.018	14.957	15.000
J350SM-1517-25	15.0	17.0	25.0			17.000	17.018	14.957	15.000
J350SM-1618-04	16.0	18.0	4.0	16.016	16.086	18.000	18.018	15.957	16.000
J350SM-1618-15	16.0	18.0	15.0			18.000	18.018	15.957	16.000
J350SM-1618-20	16.0	18.0	20.0			18.000	18.018	15.957	16.000
J350SM-1618-25	16.0	18.0	25.0			18.000	18.018	15.957	16.000
J350SM-1820-15	18.0	20.0	15.0			18.016	18.086	20.000	20.021
J350SM-1820-20	18.0	20.0	20.0	20.000	20.021			17.957	18.000
J350SM-1820-25	18.0	20.0	25.0	20.000	20.021			17.957	18.000
J350SM-2023-10	20.0	23.0	10.0	20.020	20.104	23.000	23.021	19.948	20.000
J350SM-2023-15	20.0	23.0	15.0			23.000	23.021	19.948	20.000
J350SM-2023-20	20.0	23.0	20.0			23.000	23.021	19.948	20.000

iglide®
J350

iglide® J350 - Product Range

Sleeve bearing - Metric



Order key

Type	Dimensions
J350 S M -04 05-04	
iglide® material	Form S (sleeve)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

For tolerance values
please refer to page 283

Dimensions according to ISO 3547-1 and special dimensions

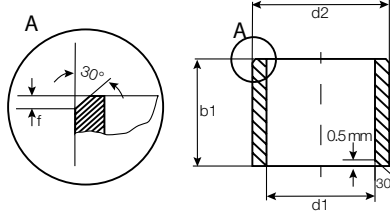
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
J350SM-2023-25	20.0	23.0	25.0	20.020	20.104	23.000	23.021	19.948	20.000
J350SM-2023-30	20.0	23.0	30.0			23.000	23.021	19.948	20.000
J350SM-2225-15	22.0	25.0	15.0	22.020	22.104	25.000	25.021	21.948	22.000
J350SM-2225-20	22.0	25.0	20.0			25.000	25.021	21.948	22.000
J350SM-2225-25	22.0	25.0	25.0			25.000	25.021	21.948	22.000
J350SM-2225-30	22.0	25.0	30.0			25.000	25.021	21.948	22.000
J350SM-2427-15	24.0	27.0	15.0	24.020	24.104	27.000	27.021	23.948	24.000
J350SM-2427-20	24.0	27.0	20.0			27.000	27.021	23.948	24.000
J350SM-2427-25	24.0	27.0	25.0			27.000	27.021	23.948	24.000
J350SM-2427-30	24.0	27.0	30.0			27.000	27.021	23.948	24.000
J350SM-2528-15	25.0	28.0	15.0	25.020	25.104	28.000	28.021	24.948	25.000
J350SM-2528-20	25.0	28.0	20.0			28.000	28.021	24.948	25.000
J350SM-2528-25	25.0	28.0	25.0			28.000	28.021	24.948	25.000
J350SM-2528-30	25.0	28.0	30.0			28.000	28.021	24.948	25.000
J350SM-2528-45	25.0	28.0	45.0			28.000	28.021	24.948	25.000
J350SM-2832-20	28.0	32.0	20.0			28.020	28.104	32.000	32.025
J350SM-2832-25	28.0	32.0	25.0	32.000	32.025			27.948	28.000
J350SM-2832-30	28.0	32.0	30.0	32.000	32.025			27.948	28.000
J350SM-3034-20	30.0	34.0	20.0	30.020	30.104	34.000	34.025	29.948	30.000
J350SM-3034-25	30.0	34.0	25.0			34.000	34.025	29.948	30.000
J350SM-3034-30	30.0	34.0	30.0			34.000	34.025	29.948	30.000
J350SM-3034-40	30.0	34.0	40.0			34.000	34.025	29.948	30.000
J350SM-3236-20	32.0	36.0	20.0	32.025	32.125	36.000	36.025	31.938	32.000
J350SM-3236-30	32.0	36.0	30.0			36.000	36.025	31.938	32.000
J350SM-3236-40	32.0	36.0	40.0			36.000	36.025	31.938	32.000
J350SM-3539-20	35.0	39.0	20.0	35.025	35.125	39.000	39.025	34.938	35.000
J350SM-3539-30	35.0	39.0	30.0			39.000	39.025	34.938	35.000
J350SM-3539-40	35.0	39.0	40.0			39.000	39.025	34.938	35.000
J350SM-3539-50	35.0	39.0	50.0			39.000	39.025	34.938	35.000
J350SM-4044-20	40.0	44.0	20.0	40.025	40.125	44.000	44.025	39.938	40.000
J350SM-4044-30	40.0	44.0	30.0			44.000	44.025	39.938	40.000
J350SM-4044-40	40.0	44.0	40.0			44.000	44.025	39.938	40.000
J350SM-4044-50	40.0	44.0	50.0			44.000	44.025	39.938	40.000
J350SM-4550-20	45.0	50.0	20.0	45.025	45.125	50.000	50.025	44.938	45.000
J350SM-4550-30	45.0	50.0	30.0			50.000	50.025	44.938	45.000
J350SM-4550-40	45.0	50.0	40.0			50.000	50.025	44.938	45.000
J350SM-4550-50	45.0	50.0	50.0			50.000	50.025	44.938	45.000

iglide® J350 - Product Range

Sleeve bearing - Metric

iglide®
J350



Order key

Type	Dimensions
J350 S M	-04 05-04

iglide® material

Form S (sleeve)

Metric

Inner-Ø d1 (mm)

Outer-Ø d2 (mm)

Length b1 (mm)

For tolerance values
please refer to page 283

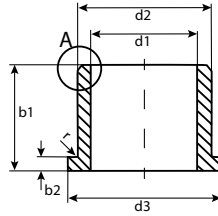
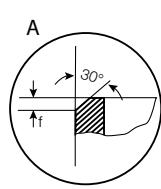
Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
J350SM-5055-20	50.0	55.0	20.0	50.025	50.125	55.000	55.030	49.938	50.000
J350SM-5055-30	50.0	55.0	30.0			55.000	55.030	49.938	50.000
J350SM-5055-40	50.0	55.0	40.0			55.000	55.030	49.938	50.000
J350SM-5055-50	50.0	55.0	50.0			55.000	55.030	49.938	50.000
J350SM-5055-60	50.0	55.0	60.0			55.000	55.030	49.938	50.000

iglide®
J350

iglide® J350 - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
J350	F M -06 08-04

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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 $r = \max. 0.5$

 For tolerance values
 please refer to page 283

Dimensions according to ISO 3547-1 and special dimensions

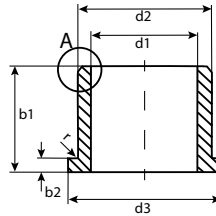
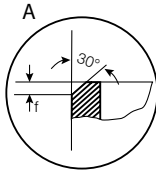
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max..	Min.	Max.	Min.	Max.
J350FM-0608-04	6.0	8.0	12.0	4.0	1.0	6.010	6.058	8.000	8.015	5.970	6.000
J350FM-0608-06	6.0	8.0	12.0	6.0	1.0			8.000	8.015	5.970	6.000
J350FM-0608-08	6.0	8.0	12.0	8.0	1.0			8.000	8.015	5.970	6.000
J350FM-0810-05	8.0	10.0	15.0	5.5	1.0	8.013	8.071	10.000	10.018	7.964	8.000
J350FM-0810-07	8.0	10.0	15.0	7.5	1.0			10.000	10.018	7.964	8.000
J350FM-0810-09	8.0	10.0	15.0	9.5	1.0			10.000	10.018	7.964	8.000
J350FM-0810-10	8.0	10.0	15.0	10.0	1.0			10.000	10.018	7.964	8.000
J350FM-1012-07	10.0	12.0	18.0	7.0	1.0	10.013	10.071	12.000	12.018	9.964	10.000
J350FM-1012-09	10.0	12.0	18.0	9.0	1.0			12.000	12.018	9.964	10.000
J350FM-1012-10	10.0	12.0	18.0	10.0	1.0			12.000	12.018	9.964	10.000
J350FM-1012-12	10.0	12.0	18.0	12.0	1.0			12.000	12.018	9.964	10.000
J350FM-1012-17	10.0	12.0	18.0	17.0	1.0			12.000	12.018	9.964	10.000
J350FM-1214-07	12.0	14.0	20.0	7.0	1.0	12.016	12.086	14.000	14.018	11.957	12.000
J350FM-1214-09	12.0	14.0	20.0	9.0	1.0			14.000	14.018	11.957	12.000
J350FM-1214-12	12.0	14.0	20.0	12.0	1.0			14.000	14.018	11.957	12.000
J350FM-1214-17	12.0	14.0	20.0	17.0	1.0			14.000	14.018	11.957	12.000
J350FM-1416-12	14.0	16.0	22.0	12.0	1.0	14.016	14.086	16.000	16.018	13.957	14.000
J350FM-1416-17	14.0	16.0	22.0	17.0	1.0			16.000	16.018	13.957	14.000
J350FM-1517-09	15.0	17.0	23.0	9.0	1.0	15.016	15.086	17.000	17.018	14.957	15.000
J350FM-1517-12	15.0	17.0	23.0	12.0	1.0			17.000	17.018	14.957	15.000
J350FM-1517-17	15.0	17.0	23.0	17.0	1.0			17.000	17.018	14.957	15.000
J350FM-1618-12	16.0	18.0	24.0	12.0	1.0	16.016	16.086	18.000	18.018	15.957	16.000
J350FM-1618-17	16.0	18.0	24.0	17.0	1.0			18.000	18.018	15.957	16.000
J350FM-1820-12	18.0	20.0	26.0	12.0	1.0	18.016	18.086	20.000	20.021	17.957	18.000
J350FM-1820-17	18.0	20.0	26.0	17.0	1.0			20.000	20.021	17.957	18.000
J350FM-1820-22	18.0	20.0	26.0	22.0	1.0			20.000	20.021	17.957	18.000
J350FM-2023-11	20.0	23.0	30.0	11.5	1.5	20.020	20.104	23.000	23.021	19.948	20.000
J350FM-2023-16	20.0	23.0	30.0	16.5	1.5			23.000	23.021	19.948	20.000
J350FM-2023-21	20.0	23.0	30.0	21.5	1.5			23.000	23.021	19.948	20.000
J350FM-2528-11	25.0	28.0	35.0	11.5	1.5	25.020	25.104	28.000	28.021	24.948	25.000
J350FM-2528-16	25.0	28.0	35.0	16.5	1.5			28.000	28.021	24.948	25.000
J350FM-2528-21	25.0	28.0	35.0	21.5	1.5			28.000	28.021	24.948	25.000
J350FM-3034-16	30.0	34.0	42.0	16.0	2.0	30.020	30.104	34.000	34.025	29.948	30.000
J350FM-3034-22	30.0	34.0	42.0	22.0	2.0			34.000	34.025	29.948	30.000
J350FM-3034-26	30.0	34.0	42.0	26.0	2.0			34.000	34.025	29.948	30.000
J350FM-3034-37	30.0	34.0	42.0	37.0	2.0			34.000	34.025	29.948	30.000
J350FM-3539-16	35.0	39.0	47.0	16.0	2.0	35.025	35.125	39.000	39.025	34.938	35.000

iglide® J350 - Product Range

Flange bearing - Metric

iglide®
J350



Order key

Type

Dimensions

J350 F M -06 08 -04

iglide® material

Form F (flange)

Metric

Inner-Ø d1 (mm)

Outer-Ø d2 (mm)

Length b1 (mm)

$r = \max. 0.5$

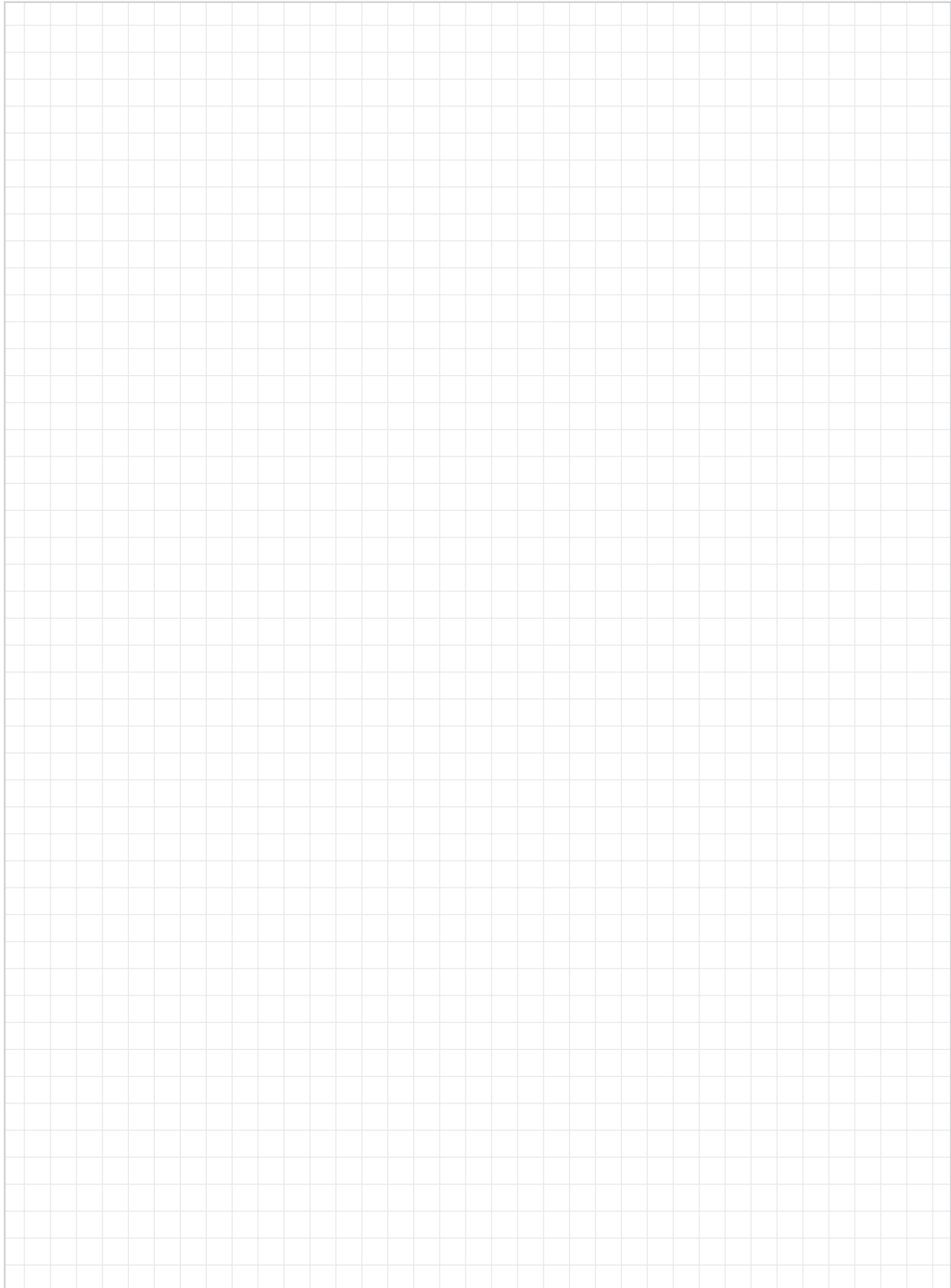
For tolerance values
please refer to page 283

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max..	Min.	Max.	Min.	Max.
J350FM-3539-26	35.0	39.0	47.0	26.0	2.0	35.025	35.125	39.000	39.025	34.938	35.000
J350FM-4044-30	40.0	44.0	52.0	30.0	2.0	40.025	40.125	44.000	44.025	39.938	40.000
J350FM-4044-40	40.0	44.0	52.0	40.0	2.0			44.000	44.025	39.938	40.000
J350FM-4550-50	45.0	50.0	58.0	50.0	2.5	45.050	45.150	50.000	50.025	44.938	45.000

Notes





iglide® W360

- Extremely wear-resistant
- Continuous use up to 356°F
- Suitable for wet environments
- Good price/performance ratio

iglide®
W360

iglide® W360 - General purpose endurance runner

Highly wear-resistant



Extremely wear-resistant

Continuous use up to 356°F



Suitable for wet environments

Good price/performance ratio

The new iglide® material combines outstanding continuous running properties with excellent temperature resistance, reduced moisture absorption and good value — a real all-around bearing in the endurance field.



- When highly wear-resistant bearings are required for average loads
- When regular contact with moisture occurs
- When sustained temperatures above 356°F occur



- When a highly wear-resistant bearing is desired for the standard temperature range and low loads
 - iglide® J
- When the maximum temperature resistance and high wear resistance is required
 - iglide® Z
 - iglide® J350
- When the highest wear resistance under water is required
 - iglide® UW
 - iglide® H370



Available from stock

Detailed information about delivery time online.



max. +356°F
min. -40°F



Price breaks online

No minimum order.



Ø 6 to 20 mm
more dimensions on request



Typical application areas

- Automation
- Material handling
- Electromobility
- Two-wheel technology

iglide® W360 - Technical Data

 iglide®
W360

Material Properties Table

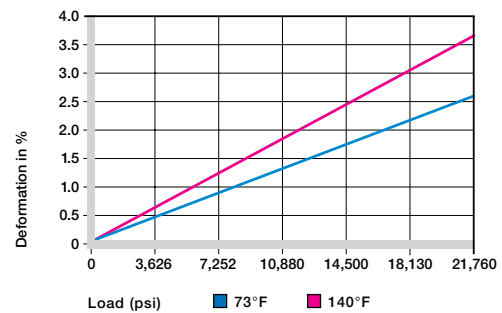
General Properties	Unit	iglide® W360	Testing Method
Density	g/cm ³	1.34	
Color		yellow	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.2	DIN 53495
Max. moisture absorption	% weight	1.6	
Coefficient of friction, dynamic against steel	μ	0.07 - 0.21	
pv value, max. (dry)	psi x fpm	10,000	
Mechanical Properties			
Modulus of elasticity	psi	555,350	DIN 53457
Tensile strength at 68°F	psi	17,259	DIN 53452
Compressive strength	psi	ND	
Permissible static surface pressure (68°F)	psi	10,878	
Shore D-hardness		80	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	356	
Max. application temperature, short-term	°F	392	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	6	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹³	DIN IEC 93
Surface resistance	Ω	> 10 ¹²	DIN 53482

Compressive Strength

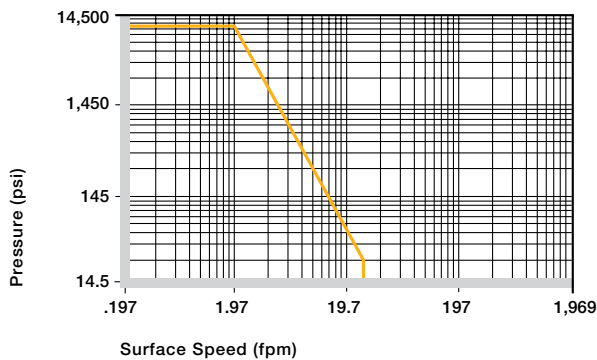
With increasing temperatures, the compressive strength of iglide® W360 plain bearings decreases. The graph clarifies this relationship. At 356 °F the surface pressure is still 1,450 psi. The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this.

iglide® W360 bearings are suitable for a broad range of loads. The graph shows the deformation under temperature. It shows the material behavior submitted to a short term load.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® W360 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® W360 bearings are suitable for low to medium speeds in both rotating and oscillating applications. Even linear movements can often be realized with iglide® W360.

- Surface speed, Page 64
- pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	236	531
Oscillating	177	393
Linear	591	984

Maximum surface speeds

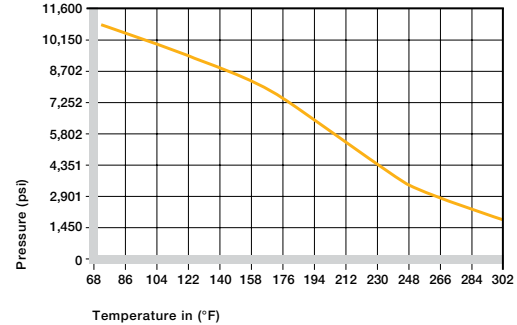
iglide®
W360

iglide® W360 - Technical Data

Temperatures

The temperature resistance makes iglide® W360 a very universal material for plain bearings in different industries. Application temperatures up to +392 °F are permitted on the short term. Please note that from +194 °F additional securing of the bushings is required.

► Application temperatures, Page 67



Recommended maximum permissible static surface pressure of iglide® W360 as a result of the temperature

iglide® W360	Application Temperature
Minimum	- 40°F
Max. long-term	+356°F
Max. short-term	+392°F
Additional axial securing	+194°F

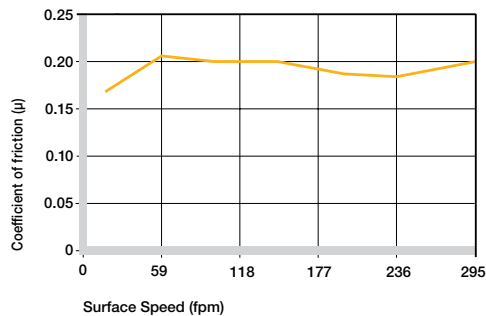
Temperature limits for iglide® W360

Friction and Wear

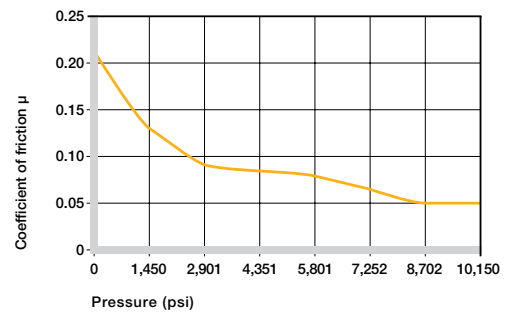
The coefficients of friction of iglide® W360 in dry operation against steel lie in a very good range. They constantly remain at a low level regardless of the speed. The graph shows this inverse relationship. As the load increases, the coefficient of friction decreases. The correlation is especially strong up to approximately 2,176 psi.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® W360 as a function of the running speed; p = 145 psi



Coefficients of friction of iglide® W360 as a function of the load, v = 1.96 fpm

iglide® W360	Coefficient of Friction
Dry	0.07 - 0.21
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® W360 against steel
(Shaft finish = 40 rms, 50 HRC)

iglide® W360 - Technical Data

iglide®
W360

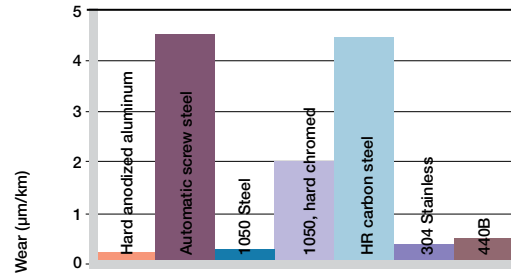
Shaft Materials

In the case of iglide® W360, the shaft's surface finish has practically no effect on the coefficient of friction in the range of up to 232 psi. The graphs show an extract of results of tests with different shaft materials. iglide® W360 bearings are suitable for all gliding partners.

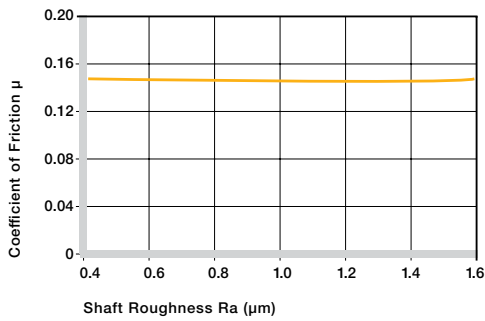
During rotation with a load of 145 psi, all aluminum hc, 1050 and stainless steel shafts stand out. A similar picture also exists with other loads or pivoting movements.

If the shaft material you plan on using is not shown in these test results, please contact us.

► Shaft Materials, Page 71



Wear of iglide® W360, rotating applications with different shaft materials, p = 145 psi, v = 59 fpm

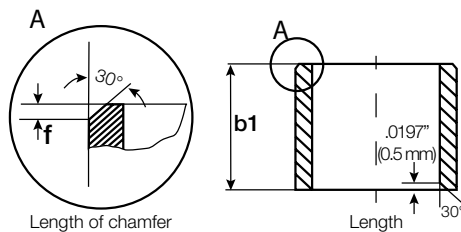


Coefficient of friction of iglide® W360 as a function of the shaft surface (1050 hard chromed)

Installation Tolerances

iglide® W360 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

- Tolerance table, Page 75
- Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 / -0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 / -0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 / -0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 / -0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 / -0.0154	
1.9685 to 3.1496	-0.0000 / -0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 / -140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 / -180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 / -220	f = 0.8 → d ₁ > 12 - 30 mm
> 10 to 18	-0 / -270	f = 1.2 → d ₁ > 30 mm
> 18 to 30	-0 / -330	
> 30 to 50	-0 / -390	
> 50 to 80	-0 / -460	

Chemical Resistance

► Chemical table, Page 1364

Medium	Resistance
Alcohol	0 to -
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to -
Strong acids	0 to -
Weak alkaline	+
Strong alkaline	+

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® W360

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364

Moisture absorption

The moisture absorption of iglide® W360 is low and can be used in a humid environment. With a maximum absorption rate of 1.6%, underwater use is only possible when reduction of the ID is taken into account.

Radiation Resistance

Plain bearings made from iglide® W360 are resistant to radiation up to an intensity of $2 \cdot 10^2$ Gy.

UV-Resistance

iglide® W360 plain bearings are partially resistant to UV radiation.

Vacuum

In a vacuum, iglide® W360 bearing outgases only to a very small extent. Use in vacuum is possible with dehumidified bearings.

Electrical Properties

iglide® W360 plain bearings are electrically insulating.

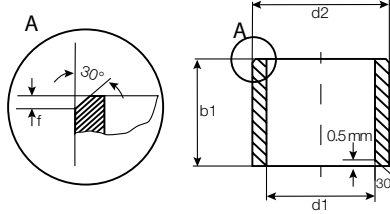
iglide® W360

Specific volume resistance	> 10^{13} Ωcm
Surface resistance	> 10^{12} Ω

Electrical properties of iglide® W360

iglide® W360 - Product Range

Sleeve bearing - Metric

 iglide®
W360

Order key

Type		Dimensions		
W360	S	M	-06	08-06
iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)
			Length b1 (mm)	

 For tolerance values
please refer to page 295

Dimensions according to ISO 3547-1 and special dimensions

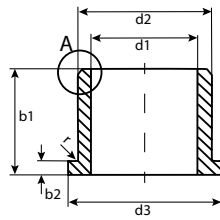
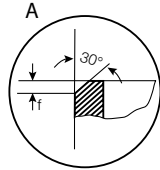
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
W360SM-0608-06	6.0	8.0	6.0	6.020	6.068	8.000	8.015	5.970	6.000
W360SM-0810-10	8.0	10.0	10.0	8.025	8.083	10.000	10.015	7.964	8.000
W360SM-1012-10	10.0	12.0	10.0	10.025	10.083	12.000	12.018	9.964	10.000
W360SM-1214-12	12.0	14.0	12.0	12.032	12.102	14.000	14.018	11.957	12.000
W360SM-1618-15	16.0	18.0	15.0	16.032	16.102	18.000	18.018	15.957	16.000
W360SM-2023-20	20.0	23.0	20.0	20.040	20.124	23.000	23.021	19.948	20.000

iglide®
W360

iglide® W360 - Product Range

Flange bearing - Metric


Order key

Type

Dimensions

W360 F M -06 08-06

iglide® material

Form F (flange)

Metric

Inner-Ø d1 (mm)

Outer-Ø d2 (mm)

Length b1 (mm)

 $r = \max. 0.5$

 For tolerance values
please refer to page 295

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max..	Min.	Max.	Min.	Max.
W360FM-0608-06	6.0	8.0	12.0	6.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
W360FM-0810-10	8.0	10.0	15.0	10.0	1.0	8.025	8.083	10.000	10.015	7.964	8.000
W360FM-1012-10	10.0	12.0	18.0	10.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
W360FM-1214-12	12.0	14.0	20.0	12.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
W360FM-1618-17	16.0	18.0	24.0	17.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
W360FM-2023-21	20.0	23.0	30.0	21.5	1.5	20.040	20.124	23.000	23.021	19.948	20.000



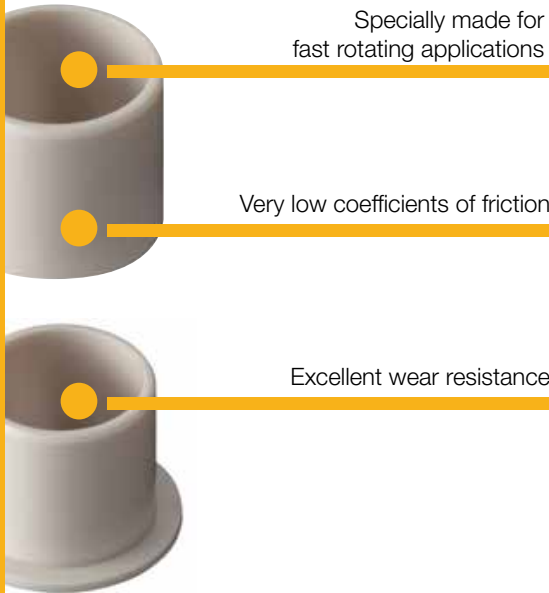
iglide® L250

- Made specifically for applications with high rotations
- Very low coefficients of friction
- Excellent wear resistance

iglide®
L250

iglide® L250 - For high speeds

For fast rotating applications



Specially made for
fast rotating applications

Very low coefficients of friction

Excellent wear resistance

Plain bearings for high speed rotation applications,
especially for fans and motors.



- For rotating applications at high speed
- If highest service life is required
- Low load applications
- If low noise level is required
- For very low coefficients of friction



- When high pressure loads occur
 - iglide® Q
 - iglide® L280
- When sustained temperatures above 194°F is a condition
 - iglide® V400
- When low moisture absorption is required
 - iglide® H1
 - iglide® J



Available from stock

Detailed information about delivery time online.



max. +194°F
min. -40°F



Price breaks online

No minimum order.



Ø 6 to 20 mm
more dimensions on request



Typical application areas

- Automotive
- Mechatronics
- Optical industry
- Electronics industry
- Test engineering and quality assurance

iglide® L250 - Technical Data

 iglide®
L250

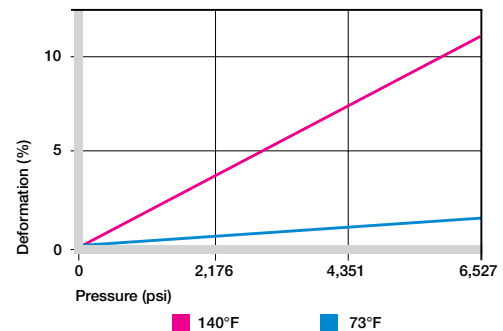
Material Properties Table

General Properties	Unit	iglide® L250	Testing Method
Density	g/cm ³	1.50	
Color		beige	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.7	DIN 53495
Max. moisture absorption	% weight	3.9	
Coefficient of friction, dynamic against steel	μ	0.08 - 0.19	
pv value, max. (dry)	psi x fpm	11,500	
Mechanical Properties			
Modulus of elasticity	psi	282,800	DIN 53457
Tensile strength at 68°F	psi	9,718	DIN 53452
Compressive strength	psi	6,817	
Permissible static surface pressure (68°F)	psi	6,527	
Shore D-hardness		68	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	194	
Max. application temperature, short-term	°F	356	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	10	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹⁰	DIN IEC 93
Surface resistance	Ω	> 10 ¹¹	DIN 53482

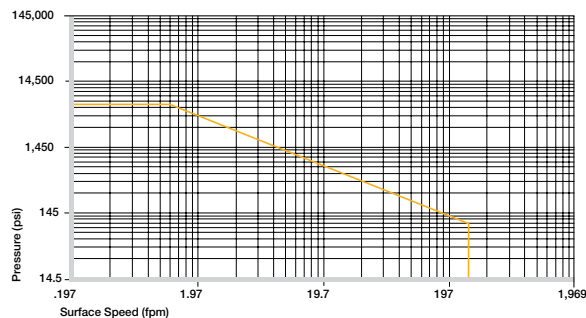
Compressive Strength

With increasing temperatures, the compressive strength of iglide® L250 plain bearings decreases. The Graph shows this inverse relationship. However, at the long term maximum temperature of +194°F the permissible surface pressure is almost 2,901 psi.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® L250 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® L250 has been developed especially for high surface speeds with low loads. Besides the physical limit, which is preset by the heating of the bearing, the coefficients of wear are also limited if rapidly high glide paths emerge at high peripheral speeds and the permitted wear limit is thus reached earlier. The maximum speeds are shown in the table to the right.

► Surface speed, Page 64
 ► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	197	295
Oscillating	137	216
Linear	393	591

Maximum surface speeds

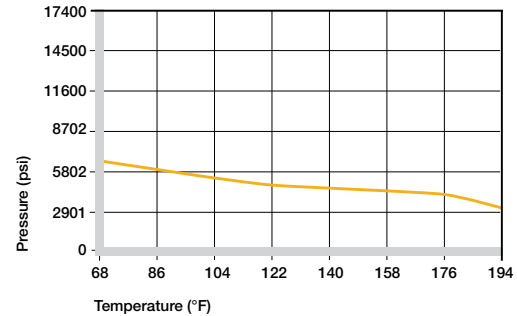
iglide®
L250

iglide® L250 - Technical Data

Temperatures

iglide® L250 plain bearings can be used at temperatures from -40°F up to 194°F. The short-term maximum temperature is 356°F. Note that a mechanical securing of the bearing is recommended from temperatures of 131°F. Higher temperatures can also cause the bearing to lose its pressfit seating and move in the housing.

► Application temperatures, Page 67



Recommended maximum permissible static surface pressure of iglide® L250 as a result of the temperature

iglide® L250	Application Temperature
Minimum	- 40°F
Max. long-term	+194°F
Max. short-term	+356°F
Additional axial securing	+131°F

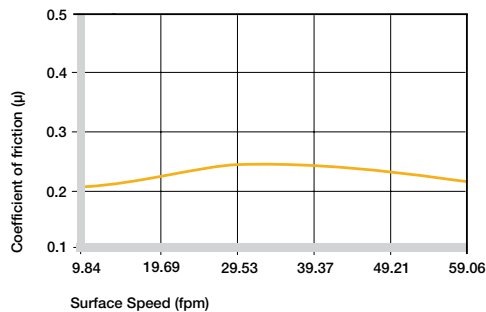
Temperature limits for iglide® L250

Friction and Wear

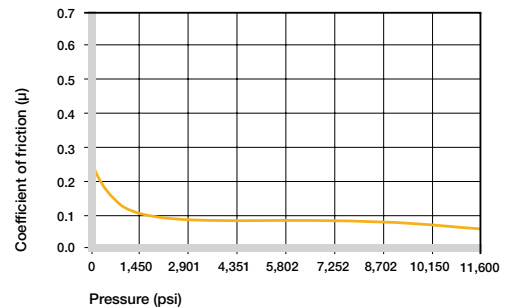
The best pairing of iglide® L250 bearings is with 304 stainless steel shafts where coefficients of friction of 0.14 are already attained at low loads. Coefficients of friction below 0.1 have already been measured for values below 1,450 psi.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® L250 as a function of the running speed; p = 108 psi



Coefficients of friction of iglide® L250 as a function of the load, v = 1.96 fpm

iglide® L250	Coefficient of Friction
Dry	0.08 - 0.19
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® L250 against steel
(Shaft finish = 40 rms, 50 HRC)

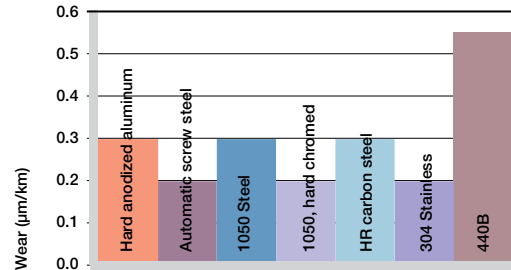
iglide® L250 - Technical Data

iglide®
L250

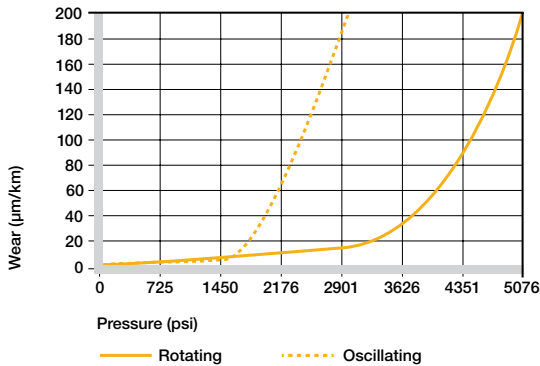
Shaft Materials

As shown in the graphs, a variety of shafts can be used at low loads and low rotation. The good coefficients of friction are maintained across a wide range of recommended shaft roughness values. With regards to loads greater than 145 psi the shaft material selection becomes more important.

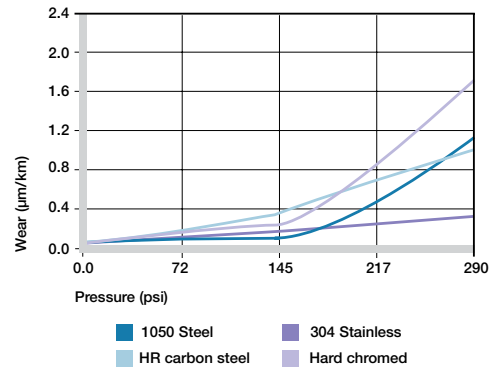
► Shaft Materials, Page 71



Wear of iglide® L250, rotating applications with different shaft materials, p=108 psi, v=98 fpm



Wear with different shaft materials, oscillating and rotating movement p = 290 psi

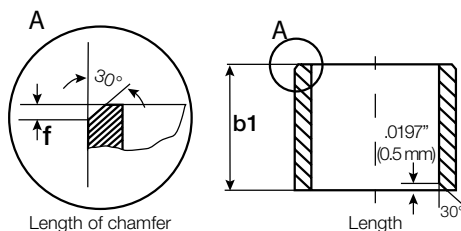


Wear of iglide® L250 with different shaft materials in rotational applications

Installation Tolerances

iglide® L250 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance

iglide® L250 bearings are resistant to diluted alkalis and very weak acids as well as solvents and all types of lubricants.

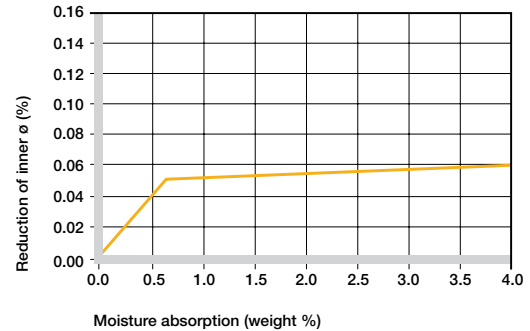
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+ to 0
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to -
Strong acids	-
Weak alkaline	+
Strong alkaline	0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® L250

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® L250 plain bearings

Radiation Resistance

Plain bearings made from iglide® L250 are radiation resistant up to an intensity of 3×10^4 Gy. Higher radiation affects the material and may result in a significant decrease in mechanical properties.

UV-Resistance

When subjected to UV radiation, iglide® L250 plain bearings become discolored. However, hardness, compressive strength and the wear resistance of the material are not effected.

Vacuum

In vacuum applications, any absorbed moisture content is outgassed. For this reason only dehumidified iglide® L250 bearings are suitable for use in a vacuum.

Electrical Properties

iglide® L250 plain bearings are electrically insulating.

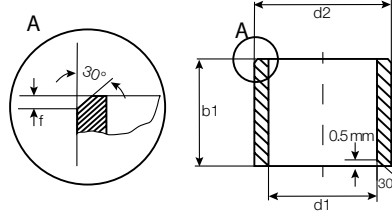
iglide® L250	
Specific volume resistance	> 10^{10} Ω cm
Surface resistance	> 10^{11} Ω

Electrical properties of iglide® L250

iglide® L250 - Product Range

Sleeve bearing - Metric

iglide®
L250



Order key

Type	Dimensions
L250 S	M-04 05-04

iglide® material

Form S (sleeve)

Metric

Inner-Ø d1 (mm)

Outer-Ø d2 (mm)

Length b1 (mm)

For tolerance values
please refer to page 303

Dimensions according to ISO 3547-1 and special dimensions

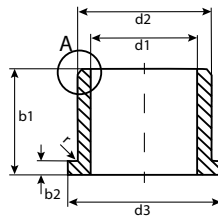
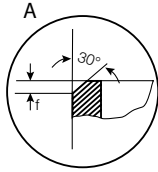
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
L250SM-0608-06	6.0	8.0	6.0	6.020	6.068	8.000	8.015	5.970	6.000
L250SM-0810-10	8.0	10.0	10.0	8.025	8.083	10.000	10.015	7.964	8.000
L250SM-1012-10	10.0	12.0	10.0	10.025	10.083	12.000	12.018	9.964	10.000
L250SM-1214-12	12.0	14.0	12.0	12.032	12.102	14.000	14.018	11.957	12.000
L250SM-1618-15	16.0	18.0	15.0	16.032	16.102	18.000	18.018	15.957	16.000
L250SM-2023-20	20.0	23.0	20.0	20.040	20.124	23.000	23.021	19.948	20.000

iglide®
L250

iglide® L250 - Product Range

Flange bearing - Metric



Order key

Type	Dimensions
L250 F M	-06 08-04

iglide® material

Form F (flange)

Metric

Inner-Ø d1 (mm)

Outer-Ø d2 (mm)

Length b1 (mm)

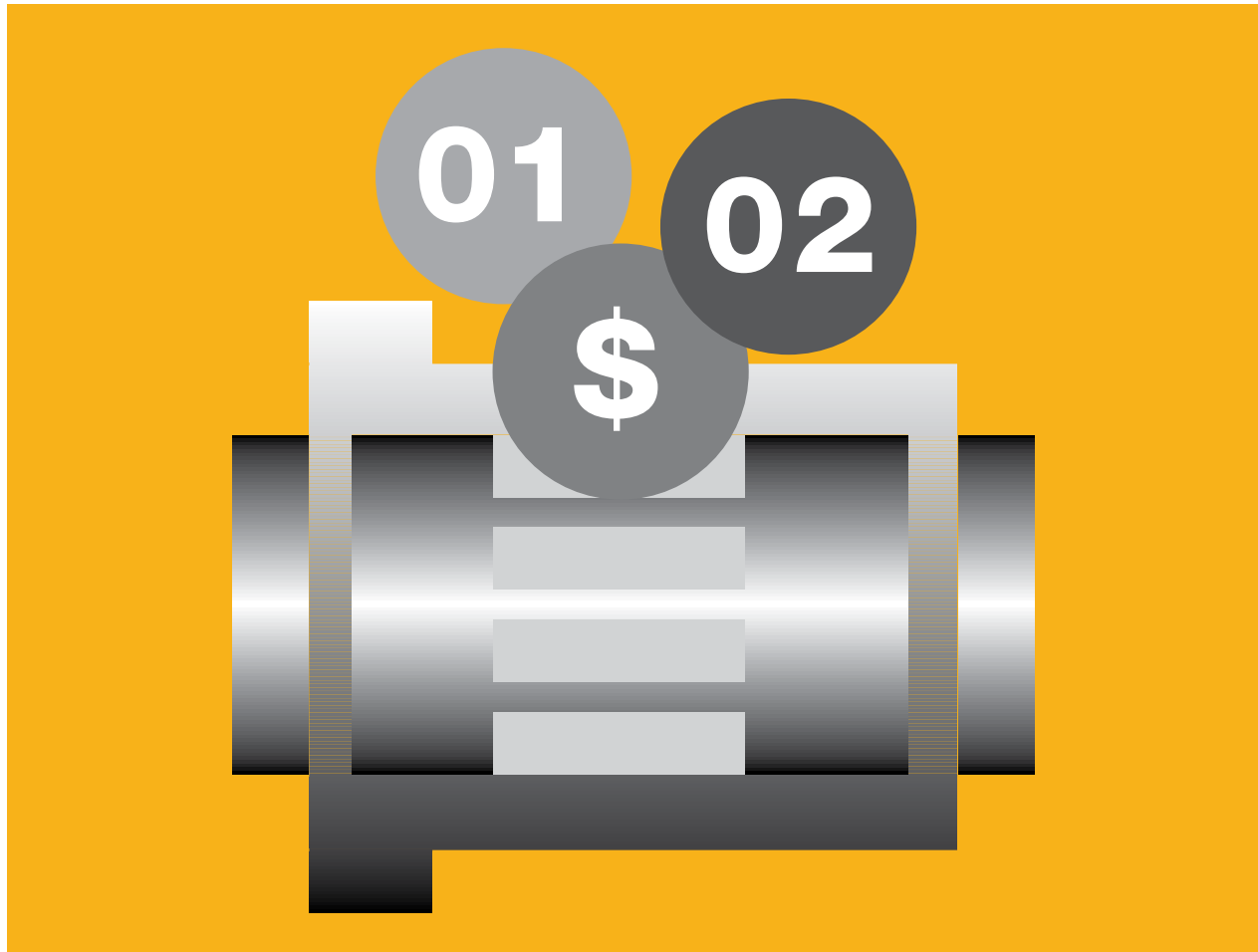
$r = \max. 0.5$

For tolerance values
please refer to page 303

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max..	Min.	Max.	Min.	Max.
L250FM-0608-06	6.0	8.0	12.0	6.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
L250FM-0810-10	8.0	10.0	15.0	10.0	1.0	8.025	8.083	10.000	10.015	7.964	8.000
L250FM-1012-10	10.0	12.0	18.0	10.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
L250FM-1214-12	12.0	14.0	20.0	12.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
L250FM-1618-17	16.0	18.0	24.0	17.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
L250FM-2023-21	20.0	23.0	30.0	21.5	1.5	20.040	20.124	23.000	23.021	19.948	20.000



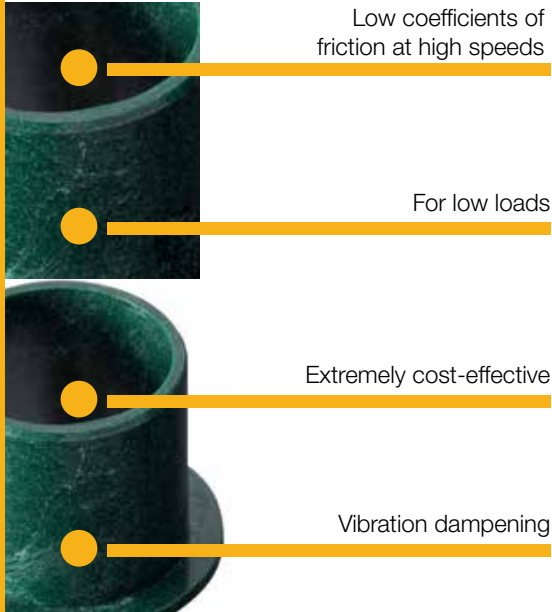
iglide® D

- Low coefficients of friction at high speeds
- For low loads
- Very cost-effective
- Vibration dampening
- Very low moisture absorption

iglide®
D

iglide® D - Low cost material with silicone

Economic



Low coefficients of friction at high speeds

For low loads

Extremely cost-effective

Vibration dampening

iglide® D is a low cost material with low coefficients of friction and good wear resistance at low loads.



- When low coefficients of friction are needed
- For high speeds
- For low loads
- When a highly cost-effective bearing is needed



- When high pressures occur
 - iglide® G300
- When the parts must be free from silicone
 - iglide® J
 - iglide® R
- When temperatures continuously exceed 194°F
 - iglide® G300
 - iglide® P



Available upon request

Detailed information about delivery time online.



max. +194°F
min. -58°F



Order dependent



Contact igus®
Sizes available upon request



Typical application areas

- Sports and leisure
- Model making
- Furniture industry

iglide® D - Technical Data

 iglide®
D

Material Properties Table

General Properties	Unit	iglide® D	Testing Method
Density	g/cm ³	1.40	
Color		green	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.3	DIN 53495
Max. moisture absorption	% weight	1.1	
Coefficient of friction, dynamic against steel	μ	0.08 - 0.26	
pv value, max. (dry)	psi x fpm	8,700	

Mechanical Properties	Unit	iglide® D	Testing Method
Modulus of elasticity	psi	290,100	DIN 53457
Tensile strength at 68°F	psi	10,440	DIN 53452
Compressive strength	psi	10,150	
Permissible static surface pressure (68°F)	psi	3,336	
Shore D-hardness		78	DIN 53505

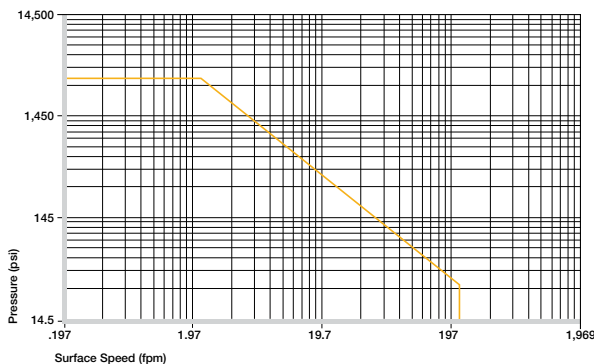
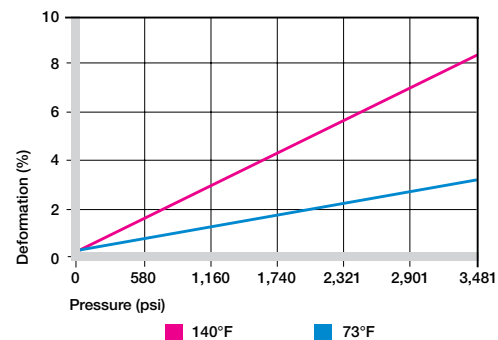
Physical and Thermal Properties	Unit	iglide® D	Testing Method
Max. long-term application temperature	°F	194	
Max. application temperature, short-term	°F	230	
Min. application temperature	°F	-58	
Thermal conductivity	W/m x K	0.25	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	11	DIN 53752

Electrical Properties	Unit	iglide® D	Testing Method
Specific volume resistance	Ωcm	> 10 ¹⁴	DIN IEC 93
Surface resistance	Ω	> 10 ¹⁴	DIN 53482

Compressive Strength

iglide® D plain bearings were developed for low to average radial loads. The graph shows the elastic deformation of iglide® D for radial loads. At the recommended maximum surface pressure of 3,336 psi, the deformation is approximately 3%. Plastic deformation is not detectable up to this value. However, it is also dependent on the temperature.

► Compressive strength, Page 63



Permissible pv values for iglide® D running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® D plain bearings are used at high surface speeds. For linear movements, short-term speeds up to 1,969 fpm are permissible. Please note that the given maximum values can only be achieved at the lowest pressure loads. These values show the speed at which friction causes a temperature increase to the maximum limit.

► Surface speed, Page 64

► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	295	591
Oscillating	216	413
Linear	1575	1969

Maximum surface speeds

iglide®
D

iglide® D - Technical Data

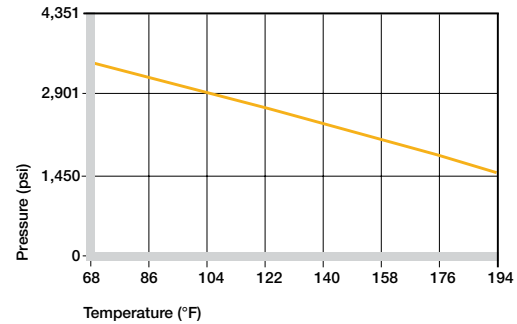
Temperatures

The maximum permissible short-term temperature is 230°F, and the long-term application temperature is 194°F. With increasing temperatures, the compression resistance of iglide® D plain bearings decreases. The temperatures prevalent in the bearing system also have an effect on the bearing wear. With increasing temperatures, the wear increases.

► Application temperatures, Page 67

iglide® D	Application Temperature
Minimum	- 58°F
Max. long-term	+194°F
Max. short-term	+230°F
Additional axial securing	+122°F

Temperature limits for iglide® D

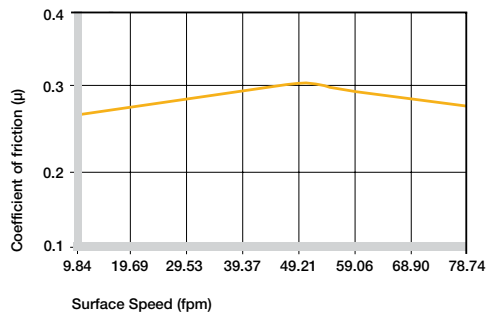


Recommended maximum permissible static surface pressure of iglide® D as a result of the temperature

Friction and Wear

In the same way as the wear resistance, the coefficient of friction decreases with increasing load. In the rms range between 16-24, the coefficient of friction reaches its optimal value.

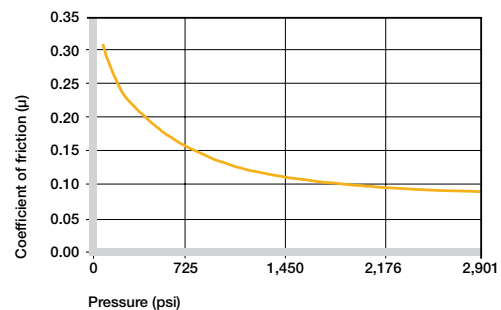
- Coefficients of friction and surfaces, Page 68
- Wear resistance, Page 69



Coefficients of friction of iglide® D as a function of the running speed; p = 108 psi

iglide® D	Coefficient of Friction
Dry	0.08 - 0.26
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® D against steel (Shaft finish = 40 rms, 50 HRC)



Coefficients of friction of iglide® D as a function of the load, v = 1.96 fpm

iglide® D - Technical Data

iglide®
D

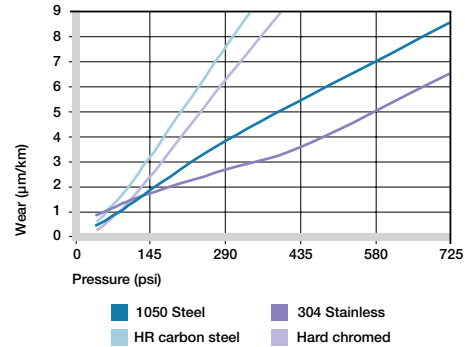
Shaft Materials

The graphs show results of testing different shaft materials with plain bearings made of iglide® D.

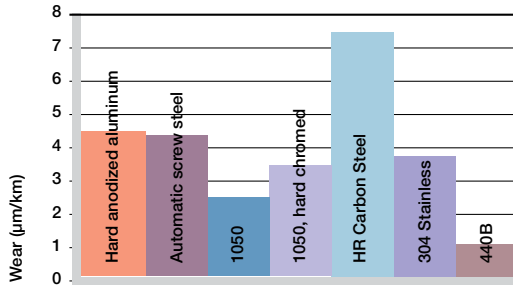
In the low load range, the hard chromed shaft is the most suitable material for iglide® D plain bearings. At loads greater than 290 psi, shafts made of 1050 hardened and ground steel as well as 304 stainless steel increase wear resistance.

For oscillating operation, the 1050 hardened and ground steel shafts and the 304 stainless steel shafts can be used in the low load range. If the shaft material you plan to use is not contained in the test results presented here, please contact us.

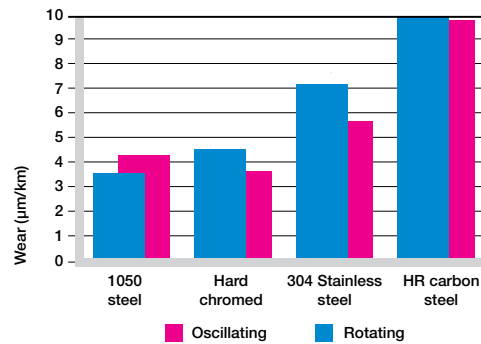
► Shaft Materials, Page 71



Wear of iglide® D with different shaft materials in rotational applications



Wear of iglide® D, rotating applications with different shaft materials, p = 108 psi, v = 98 fpm

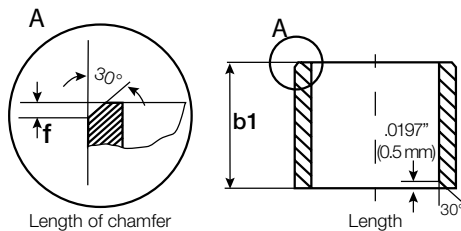


Wear with different shaft materials, oscillating and rotating movement p = 290 psi

Installation Tolerances

iglide® D plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		
Length (inches)	Tolerance (h13) (inches)	Length of Chamfer (f) Based on d1
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		
Length (mm)	Tolerance (h13) (mm)	Length of Chamfer (f) Based on d1
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance

iglide® D plain bearings are resistant to very weak acids, diluted alkalis, fuel and all types of lubricants.

The moisture absorption of iglide® D plain bearings is approximately 0.2% in standard atmosphere. The saturation limit in water is 1%. This low moisture absorption allows for design in wet environments.

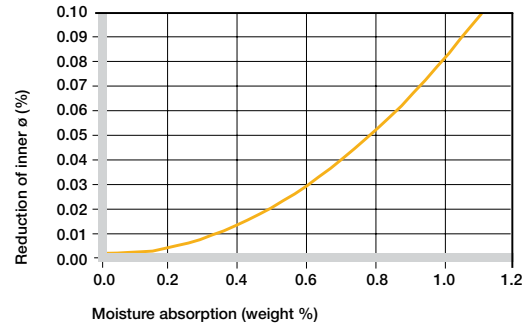
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to -
Strong acids	-
Weak alkaline	+
Strong alkaline	+ to 0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® D

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® D plain bearings

Radiation Resistance

Plain bearings made from iglide® D are radiation resistant up to an intensity of 3×10^3 Gy.

UV-Resistance

iglide® D plain bearings are resistant to UV radiation, but the tribological properties are reduced by permanent exposure.

Vacuum

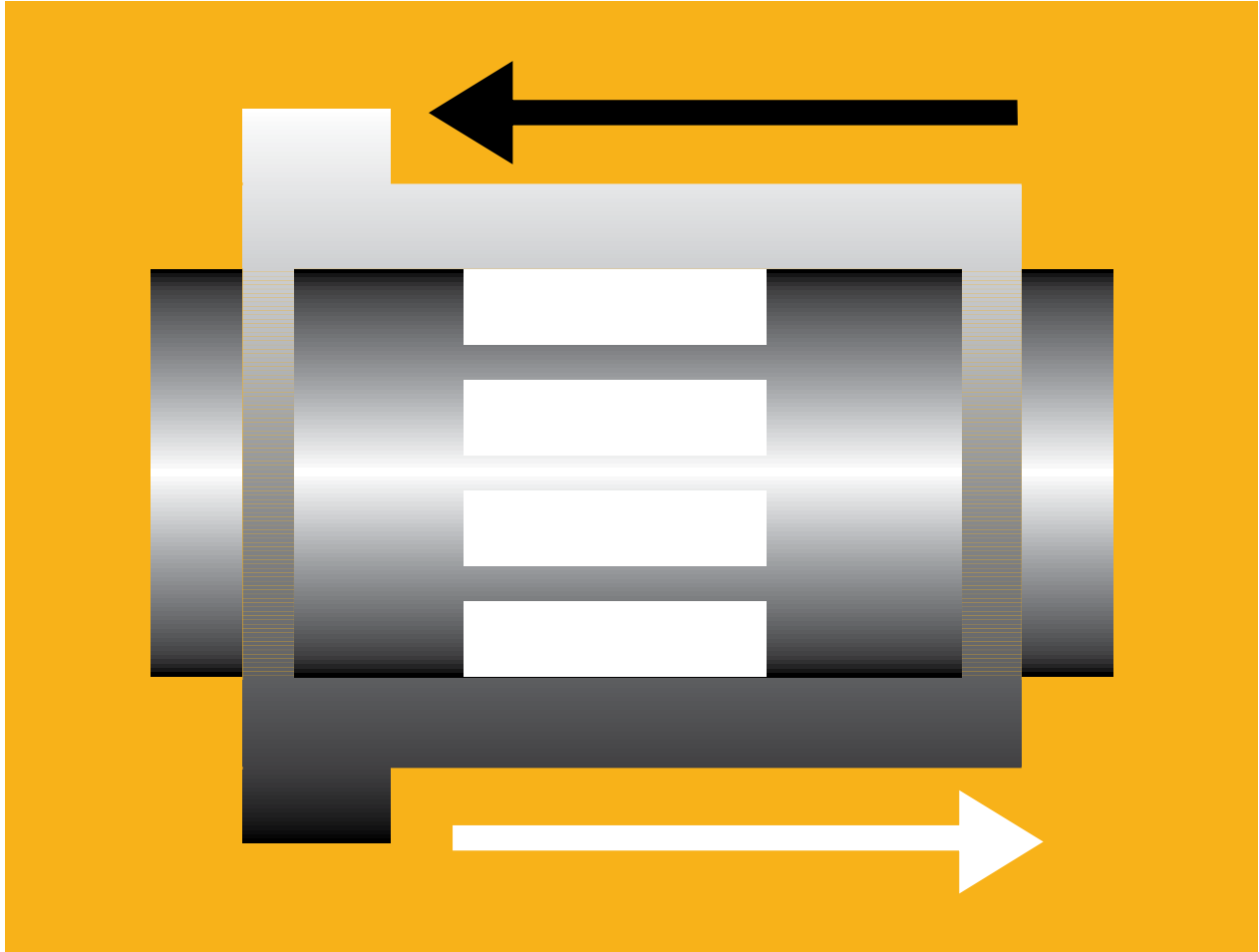
In vacuum environment, iglide® D plain bearings release gases. It is only possible to use iglide® D in a vacuum to a limited extent.

Electrical Properties

iglide® D plain bearings are electrically insulating.

iglide® D	
Specific volume resistance	> 10^{14} Ωcm
Surface resistance	> 10^{14} Ω

Electrical properties of iglide® D



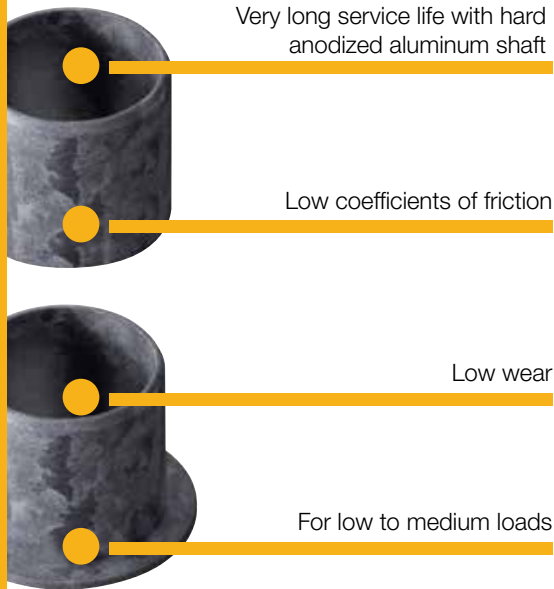
iglide® J200

- Very long service life with hard anodized aluminum
- Low coefficients of friction
- Low wear
- For low to medium loads

iglide®
J200

iglide® J200 - Specially for aluminum shafts

Low coefficients of friction



iglide® J200 is a specialist for low friction values and minimal wear with hard anodized aluminum shaft.



- For applications with hard anodized aluminum shafts
- When lowest coefficients of friction are required
- For long service life with low loads



- When steel shafts are present
 - iglide® J
 - iglide® L280
- When temperatures are continually higher than 194°F
 - iglide® V400
- When a cost-effective universal bearing is required
 - iglide® G300
 - iglide® P



Available upon request

Detailed information about delivery time online.



max. +194°F
min. -58°F



Order dependent



Contact igus®
Sizes available upon request



Typical application areas

- Automation
- Linear technology
- Actuator etc.

iglide® J200 - Technical Data

 iglide®
J200

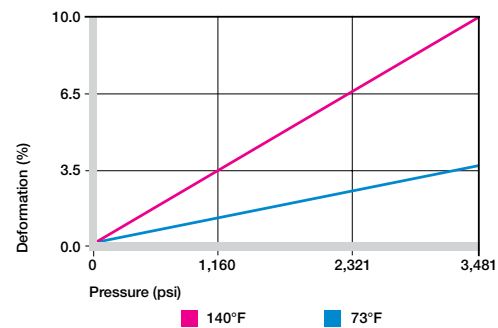
Material Properties Table

General Properties	Unit	iglide® J200	Testing Method
Density	g/cm ³	1.72	
Color		dark gray	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.2	DIN 53495
Max. moisture absorption	% weight	0.7	
Coefficient of friction, dynamic against steel	μ	0.11 - 0.17	
pv value, max. (dry)	psi x fpm	8,600	
Mechanical Properties			
Modulus of elasticity	psi	406,100	DIN 53457
Tensile strength at 68°F	psi	8,412	DIN 53452
Compressive strength	psi	6,237	
Permissible static surface pressure (68°F)	psi	3,336	
Shore D-hardness		70	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	194	
Max. application temperature, short-term	°F	248	
Min. application temperature	°F	-58	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	8	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ⁸	DIN IEC 93
Surface resistance	Ω	> 10 ⁸	DIN 53482

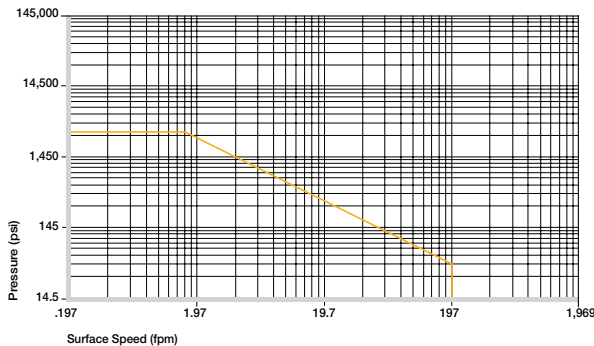
Compressive Strength

The comparison to the other iglide® materials reveals that iglide® J200 plain bearings are more suitable for lower loads. The graph shows the deformation of the material at room temperature to the recommended maximum limit. As with all thermoplastics, the compressive strength decreases with increasing temperature.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® J200 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

Due to the very good coefficients of friction, iglide® J200 can be used at high surface speeds. Continuous rotational speeds of 197 fpm are possible. The permissible speeds are even higher in linear movements or in short term operation. For linear movements, speeds of over 2,953 fpm have been successfully tested.

► Surface speed, Page 64

► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	197	295
Oscillating	137	216
Linear	1969	2953

Maximum surface speeds

iglide®
J200

iglide® J200 - Technical Data

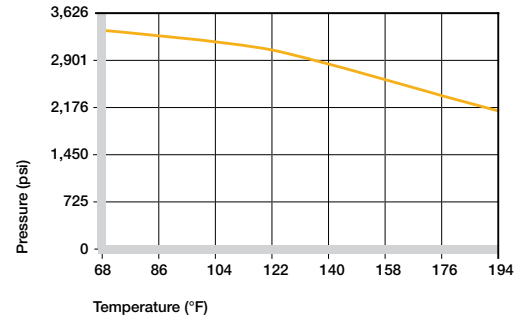
Temperatures

Plain bearings made of iglide® J200 were not developed for high temperatures. The maximum permissible temperature of 248°F may not be exceeded. Also, the heat produced by friction has to be added to the ambient temperature. Even from 140°F, the bearings should be secured mechanically, preventing the bearing from moving out of the housing. Also, the wear resistance decreases significantly from 158°F.

► Application temperatures, Page 67

iglide® J200	Application Temperature
Minimum	- 58°F
Max. long-term	+194°F
Max. short-term	+248°F
Additional axial securing	+140°F

Temperature limits for iglide® J200



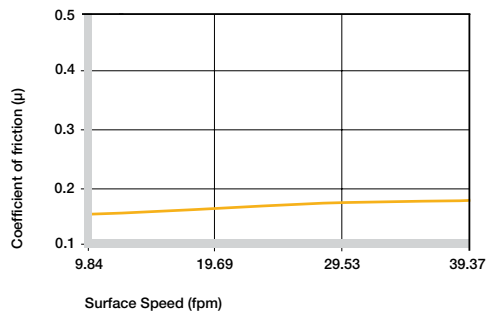
Recommended maximum permissible static surface pressure of iglide® J200 as a result of the temperature

Friction and Wear

iglide® J200 presents the lowest coefficients of friction of all iglide® materials. The average coefficient of friction of all measurements, even with different shaft materials, is 0.11 μ . The use of hard-anodized aluminum as a shaft material is also of importance. The comparison to the other iglide® materials reveals that iglide® J200 plain bearings are more suitable for lower loads. The influence of sliding speed and load on the wear is small. The change of the coefficient of friction at high loads is in the normal range as the graphs demonstrate. The optimum shaft roughness is between 0.2 and 0.4 μ m Ra. The influence of the shaft material on the wear is significant. Even at low loads, we recommend taking a closer look at the wear database.

► Coefficients of friction and surfaces, Page 68

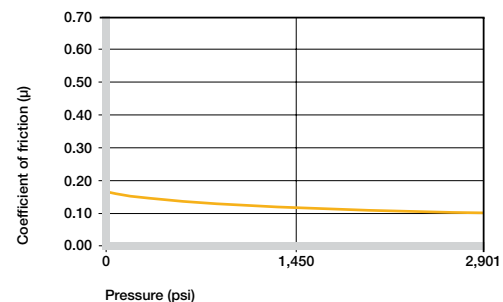
► Wear resistance, Page 69



Coefficients of friction of iglide® J200 as a function of the running speed; p = 108 psi

iglide® J200	Coefficient of Friction
Dry	0.11 - 0.17
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® J200 against steel
(Shaft finish = 40 rms, 50 HRC)



Coefficients of friction of iglide® J200 as a function of the load, v = 1.96 fpm

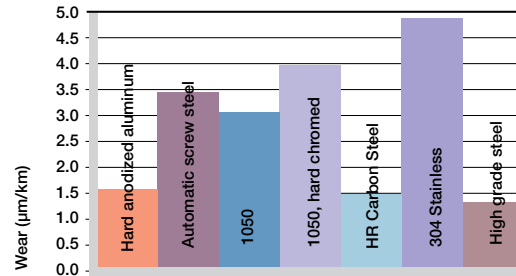
iglide® J200 - Technical Data

iglide®
J200

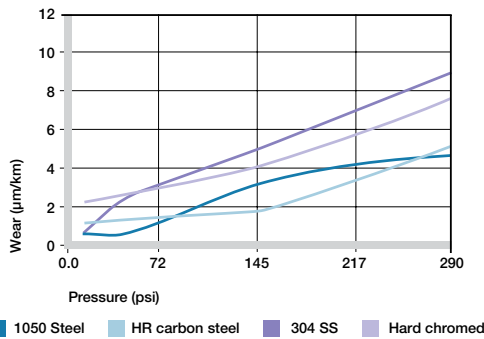
Shaft Materials

The shaft material used has a great impact on the wear resistance. In fact, all shaft materials (smooth or hardened) are suitable for use with iglide® J200. However, the best results are achieved with hard anodized aluminum. In particular when used in linear motion, this running surface has proven its value.

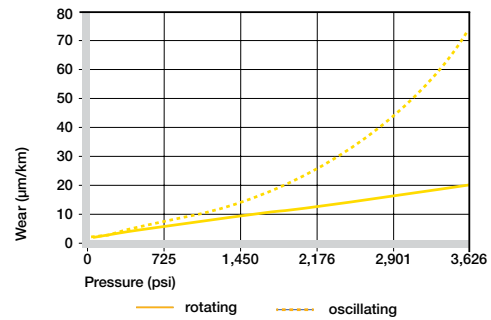
► Shaft Materials, Page 71



Wear of iglide® J200, rotating applications with different shaft materials, p=108 psi, v=98 fpm



Wear of iglide® J200 with different shaft materials in rotational applications

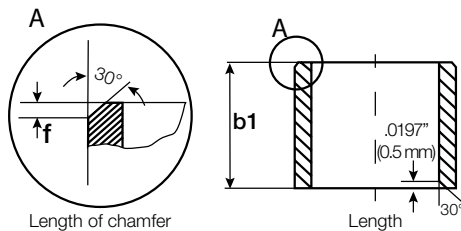


Wear with different shaft materials, oscillating and rotating movement p = 290 psi

Installation Tolerances

iglide® J200 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance

iglide® J200 plain bearings are resistant to diluted alkaline, as well as to solvents and all types of lubricants.

The moisture absorption of iglide® J200 plain bearings in standard atmosphere is approximately 0.2%. The saturation limit in water is 0.7%. Due to these low values considering expansion by moisture absorption is only required in extreme cases.

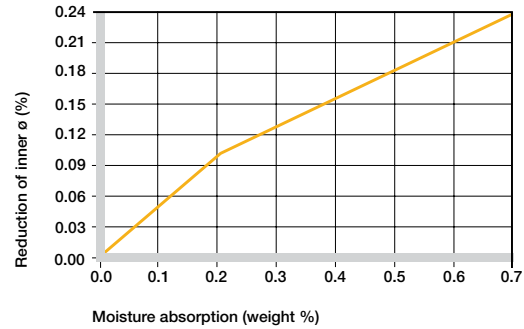
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to -
Strong acids	-
Weak alkaline	+
Strong alkaline	+ to 0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® J200

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® J200 plain bearings

Radiation Resistance

Plain bearings made from iglide® J200 are radiation resistant up to an intensity of 2×10^2 Gy.

UV-Resistance

iglide® J200 plain bearings are conditionally resistant to UV radiation.

Vacuum

iglide J200 plain bearings outgas in a vacuum. Use in a vacuum environment is only possible with dehumidified bearings.

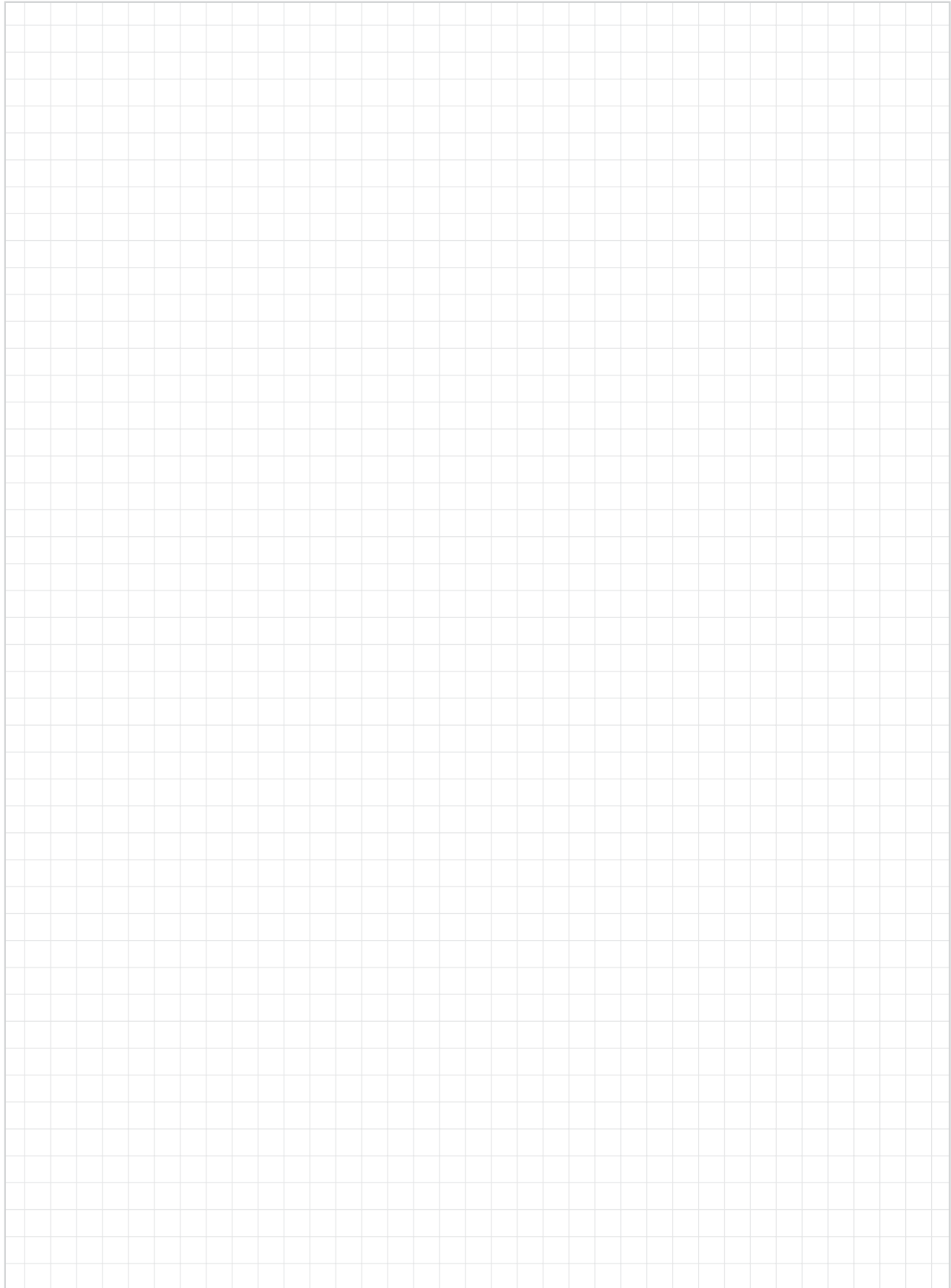
Electrical Properties

iglide® J200 plain bearings are electrically insulating.

iglide® J200	
Specific volume resistance	$> 10^{13} \Omega\text{cm}$
Surface resistance	$> 10^{10} \Omega$

Electrical properties of iglide® J200

Notes



iglide® Bearings - Advantages



Runs up to six times longer
than iglide® T500 –
iglide® X6
► **Page 325**



For soft shafts, up to 392°F –
iglide® V400
► **Page 335**



For high dynamic loads,
wear resistant –
iglide® Z
► **Page 343**




For hot liquids –
iglide® UW500
► **Page 357**


High Temperatures

This group of bearing materials are engineered to stand up to continuous operating temperatures up to 482°F. iglide® X6 surpasses the standard iglide® T500 in a number of rotating and pivoting applications, while iglide® Z has been established as an excellent choice when extremely low wear rates under high loads and/or temperatures is required. iglide® V400 is characterized as a problem solver in many special cases, while iglide® UW500 is the specialist for hot liquids.

- Self-lubricating and maintenance-free
- Lightweight
- Good price/performance ratio
- Predictable service life

 **Online product finder**
► www.igus.com/iglide-finder

 **max. +482°F**
min. -148°F

 **4 materials**



 **Ø 1/8 to 2-1/4 inches**
more dimensions on request

 **Ø 3 to 120 mm**
more dimensions on request

iglide® Bearings - Application examples

High temperatures



iglide® bearings are used in the straightening machine for their ability to run for long operating times under high loads.



iglide® thrust washers are in use in these high-speed thermal shakers in the laboratory.



iglide® Z bearings eliminated maintenance by 95%, and reduced costs by 54% in this thrill ride.



The hinge elements and ramp rollers are each fitted with two iglide® Z plain bearings. The stainless steel axles that connect the fixed part of the hinge run through the bearing.



Efficient hardening with UV radiation – iglide® bearings are able to withstand chemicals and the application temperature of +248 °F.



Self-lubricating iglide® bearings in a milk bottle filling system are resistant to disinfectants and high temperatures.

iglide® Bearings - Selection Guide - Main Properties

High temperatures



Standard
catalog
range



Bar
stock



speedigus®
material



Long life
in dry
operation



For high
loads



Dirt
resistant



Low
coefficient
of friction



Chemical
resistant

	Standard catalog range	Bar stock	speedigus® material	Long life in dry operation	For high loads	Dirt resistant	Low coefficient of friction	Chemical resistant
iglide® X6	●			●	●		●	●
iglide® V400	●			●			●	●
iglide® Z	●			●	●		●	●
iglide® UW500								●



Low water
absorption



For under
water use



Edge
pressure



Vibrations
dampening



Food
suitable



Temperatures
up to
+194°F



Temperatures
up to
+302°F

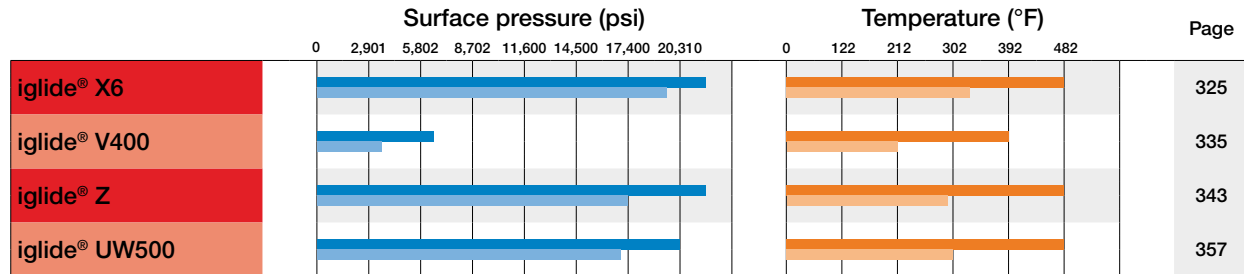


Economic

	Low water absorption	For under water use	Edge pressure	Vibrations dampening	Food suitable	Temperatures up to +194°F	Temperatures up to +302°F	Economic
iglide® X6	●					●	●	
iglide® V400	●		●			●	●	
iglide® Z	●		●			●	●	
iglide® UW500	●	●				●	●	

iglide® Bearings - Selection Guide - Main Properties

High temperatures

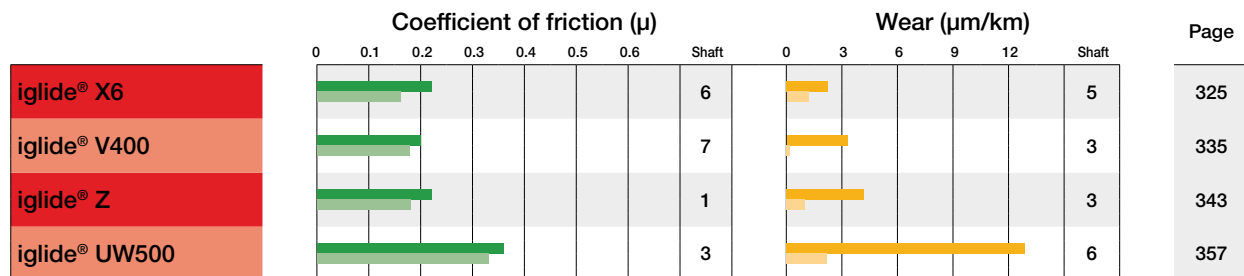


Maximum permissible surface pressure of iglide® bearings at

- +68°F
- +176°F

Important temperature limits of iglide® bearings

- Maximum permissible application temperature, continuous
- Temperature where bearings need to be secured against radial or axial movement in the housing



Coefficients of friction of iglide® bearings against steel rotating, p = 145 psi v = 59 fpm

- Average of all the seven sliding combinations tested
- Coefficient of friction of best combination

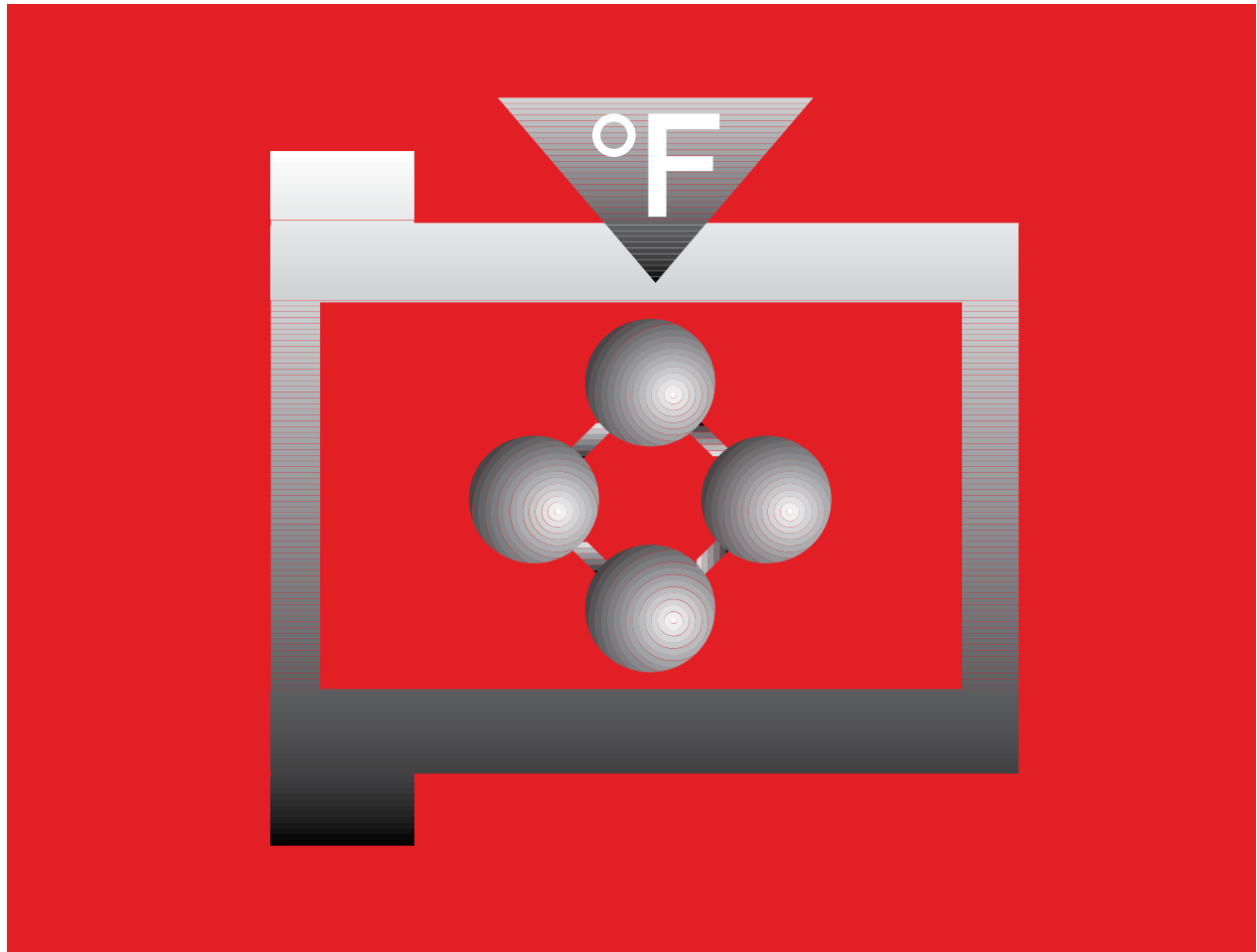
Wear of iglide® bearings against steel rotating, p = 145 psi

- Average of all the seven sliding combinations tested
- Wear of best combination



Shaft material:

1 = 1050, case hardened	4 = Free-cutting steel	7 = 440B Stainless
2 = 1050, case hardened steel, chromed	5 = Machinery Steel	
3 = Hard anodized aluminum	6 = 304 Stainless	



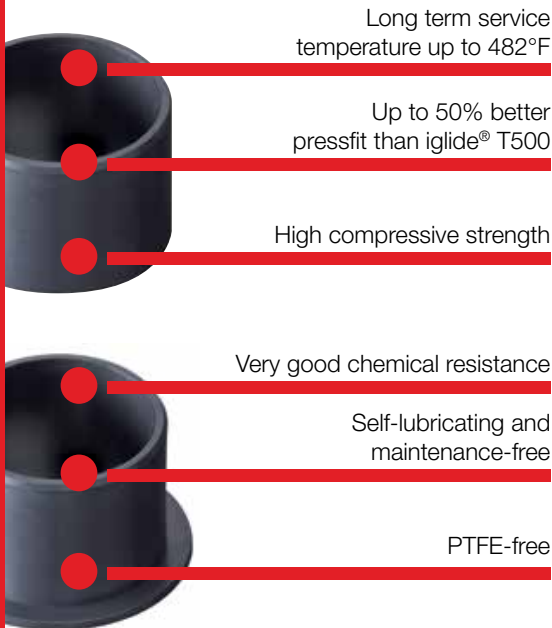
iglide[®] X6

- Long term service temperature up to +482°F
- Up to 50% more pressfit than iglide[®] T500
- High compressive strength
- Excellent chemical resistance
- PTFE-free

iglide®
X6

iglide® X6 - Runs up to 6 times longer than iglide® T500

Long term service temperature up to 482°F



Long term service
temperature up to 482°F

Up to 50% better
pressfit than iglide® T500

High compressive strength

Very good chemical resistance

Self-lubricating and
maintenance-free

PTFE-free

Due to nano-technology, iglide® X6 shows up to 6 times better performance than iglide® T500 in many oscillating and rotating applications – even at temperatures exceeding 212°F.



- If temperatures are higher than 302°F
- When the wear performance of iglide® T500 in oscillation and rotation is not sufficient
- When the amount of pressfit required exceeds iglide® T500
- If high media resistance is required
- If you need a bearing that is free of PTFE



- When you need a cost effective universal bearing
➤ **iglide® G300**
- If you need a bearing for underwater use
➤ **iglide® H370**
➤ **iglide® UW500**
- When a wear-resistant high-temperature bearing for linear movements is needed
➤ **iglide® Z**



Available from stock

Detailed information about delivery time online.



max. +482°F
min. -148°F



Price breaks online

No minimum order.



Ø 1/8 to 1-1/2 inches
more dimensions on request



Typical application areas

- Glass industry
- Food industry
- Fluid technology
- Textile technology
- Machine building



Ø 3 to 50 mm
more dimensions on request



iglide® X6 - Technical Data

 iglide®
X6

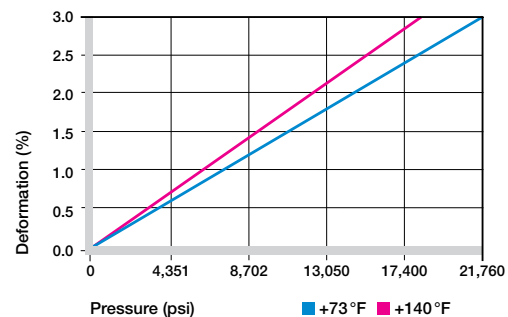
Material Properties Table

General Properties	Unit	iglide® X6	Testing Method
Density	g/cm ³	1.53	
Color		blue gray	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.1	DIN 53495
Max. moisture absorption	% weight	0.5	
Coefficient of friction, dynamic against steel	μ	0.09 - 0.25	
pv value, max. (dry)	psi x fpm	38,350	
Mechanical Properties			
Modulus of elasticity	psi	2,320,600	DIN 53457
Tensile strength at 68°F	psi	42,060	DIN 53452
Compressive strength	psi	27,557	
Permissible static surface pressure (68°F)	psi	21,755	
Shore D-hardness		89	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	482	
Max. application temperature, short-term	°F	599	
Min. application temperature	°F	-148	
Thermal conductivity	W/m x K	0.55	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	1.1	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	< 10 ⁵	DIN IEC 93
Surface resistance	Ω	< 10 ⁵	DIN 53482

Compressive Strength

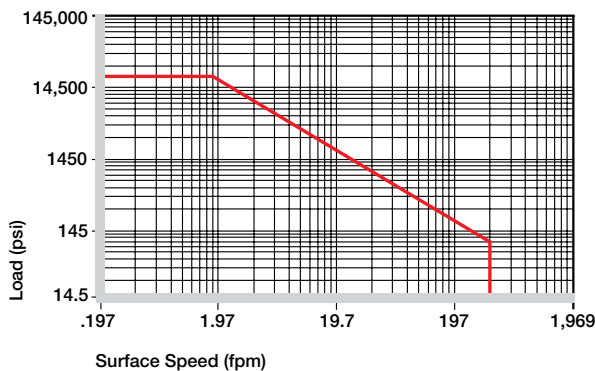
The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this. With increasing temperatures, the compressive strength of iglide® X6 plain bearings decreases.

The graph at the right shows the elastic deformation of iglide® X6 during radial loading. At the recommended maximum surface pressure of 21,755 psi the deformation is less than 2%.



Deformation under load and temperature

► Compressive strength, Page 63



Permissible pv value for iglide® X6 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

Due to the high temperature resistance and good thermal conductivity, iglide® X6 is also suitable for high speed applications. At the given speeds, friction can cause a temperature increase to maximum permissible levels. In practice, this temperature is rarely reached due to varying application conditions.

- Surface speed, Page 64
- pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	295	689
Oscillating	216	492
Linear	984	1969

Maximum surface speeds

iglide®
X6

iglide® X6 - Technical Data

Temperatures

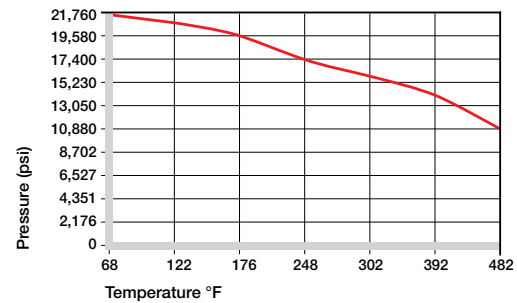
The surrounding temperatures noticeably influence the wear performance of plastic bearings. The temperature resistance of iglide® X6 is among the highest in the iglide® range.

In many tests it has shown a six times higher wear performance compared to the established high-temperature bearing iglide® T500. Another advantage to iglide® X6 is that axial securing is only necessary at temperatures above 320°F.

► Application temperatures, Page 67

iglide® X6	Application Temperature
Minimum	-148°F
Max. long-term	+482°F
Max. short-term	+599°F
Additional axial securing	+320°F

Temperature limits for iglide® X6



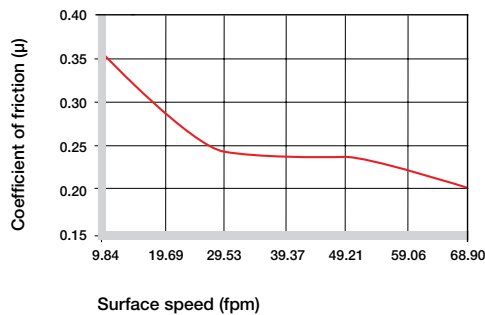
Recommended maximum permissible static surface pressure of iglide® X6 as a result of temperature (21,760 psi at +68°F)

Friction and Wear

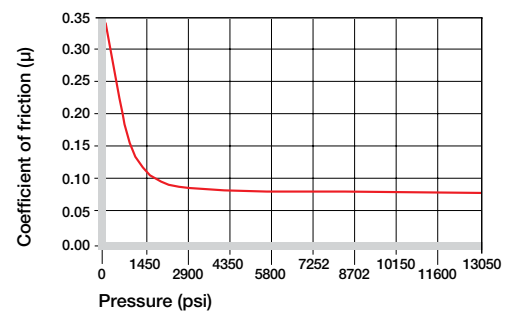
Similar to wear resistance, the coefficient of friction μ also changes with the load. The coefficient of friction of iglide® X6 declines with higher pressure and is practically constant for pressures above 4,350 psi. A higher speed of the shaft also results in a lower coefficient of friction.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficient of friction for iglide® X6 as a result of the running speed; p = 109 psi



Coefficient of friction as a function of the pressure, v = 1.96 fpm

iglide® X6	Coefficient of Friction
Dry	0.09 - 0.25
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction for iglide® X6 against steel
(Shaft finish = 40 rms, 50 HRC)

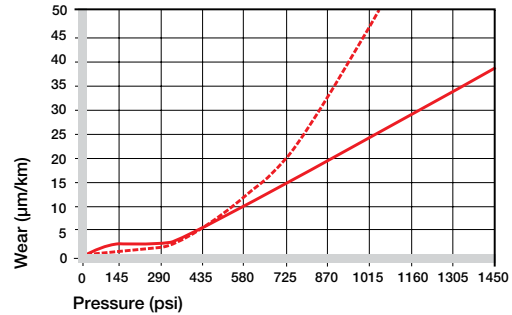
iglide® X6 - Technical Data

iglide®
X6

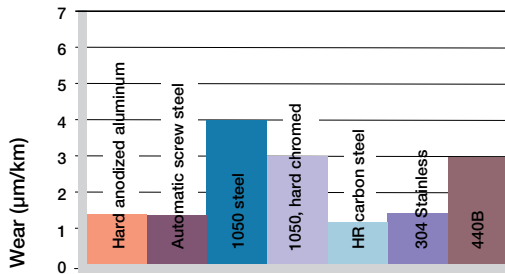
Shaft Materials

The friction and wear are also dependent, to a large degree, on the shaft material. Shafts that are too smooth, increase both the coefficient of friction and the wear of the bearing. The best case for iglide® X6 is a ground surface with an average roughness rms 16-32. The graphs show the results of testing different shaft materials with plain bearings made of iglide® X6. In the graph below it shows that iglide® X6 can be combined with various shaft materials

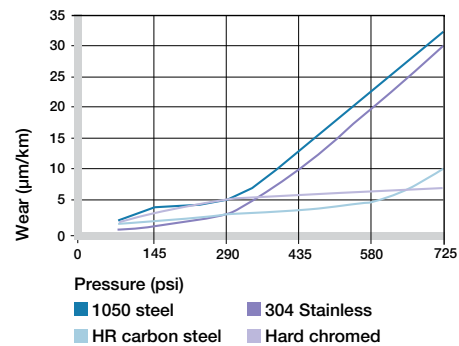
► Shaft Materials, Page 71



Wear for oscillating and rotating applications with shaft materials 1050 hard chromed and ground steel, as a function of the pressure



Wear rotating with different shaft materials, $p = 145$ psi, $v = 59$ fpm

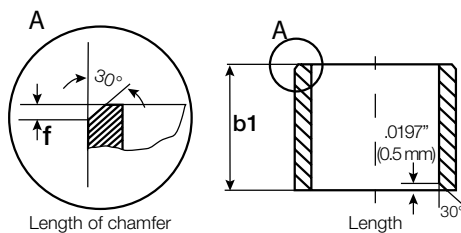


Wear with different shaft materials in rotational operation, as a function of the pressure

Installation Tolerances

iglide® X6 plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 / -0.0071	$f = .012 \rightarrow d_1 .040'' - .236''$
0.2362 to 0.3937	-0.0000 / -0.0087	$f = .019 \rightarrow d_1 > .236'' - .472''$
0.3937 to 0.7086	-0.0000 / -0.0106	$f = .031 \rightarrow d_1 > .472'' - 1.18''$
0.7086 to 1.1811	-0.0000 / -0.0130	$f = .047 \rightarrow d_1 > 1.18''$
1.1811 to 1.9685	-0.0000 / -0.0154	
1.9685 to 3.1496	-0.0000 / -0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 / -140	$f = 0.3 \rightarrow d_1 1 - 6$ mm
> 3 to 6	-0 / -180	$f = 0.5 \rightarrow d_1 > 6 - 12$ mm
> 6 to 10	-0 / -220	$f = 0.8 \rightarrow d_1 > 12 - 30$ mm
> 10 to 18	-0 / -270	$f = 1.2 \rightarrow d_1 > 30$ mm
> 18 to 30	-0 / -330	
> 30 to 50	-0 / -390	
> 50 to 80	-0 / -460	

iglide® X6 - Technical Data

Chemical Resistance

iglide® X6 plain bearings have almost universal chemical resistance. They are only affected by concentrated nitric acid and sulfuric acid. Due to the low water absorption, the material can be used in humid environments without problems. iglide® X6 is resistant to most typical detergents used in the food and packaging industries.

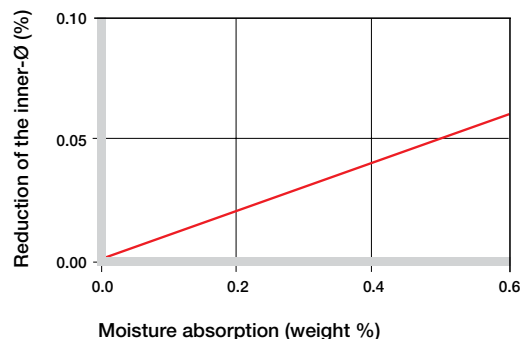
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	+
Strong acids	-
Weak alkaline	+
Strong alkaline	+

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® X6

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® X6 plain bearings

Radiation Resistance

Plain bearings made from iglide® X6 are resistant to radiation up to an intensity of 2×10^5 Gy.

UV-Resistance

Partially resistant against UV rays

Vacuum

In a vacuum environment, iglide® X6 plain bearings can be used virtually without restrictions. Outgassing takes place to a very limited extent.

Electrical Properties

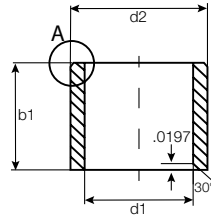
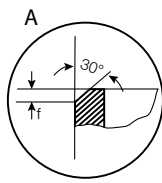
iglide® X6 plain bearings are electrically insulating.

iglide® X6	
Specific volume resistance	< $10^5 \Omega\text{cm}$
Surface resistance	< $10^5 \Omega$

Electrical properties of iglide® X6

iglide® X6 - Product Range

Sleeve bearing - Inch

 iglide®
X6

 For tolerance values
please refer to page 329

Order key

Type	Dimensions
X6	S I -01 03-02
iglide® material	Form S (sleeve)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

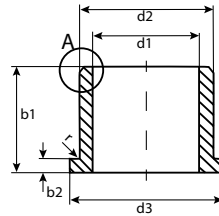
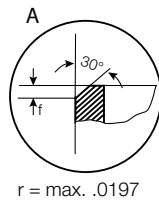
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
X6SI-0203-03	1/8	3/16	3/16	.1251	.1269	.1873	.1878	.1236	.1243
X6SI-0304-04	3/16	1/4	1/4	.1873	.1892	.2497	.2503	.1858	.1865
X6SI-0405-04	1/4	5/16	1/4	.2498	.2521	.3122	.3128	.2481	.2490
X6SI-0405-08	1/4	5/16	1/2			.3122	.3128	.2481	.2490
X6SI-0506-06	5/16	3/8	3/8	.3125	.3148	.3747	.3753	.3106	.3115
X6SI-0607-06	3/8	15/32	3/8	.3750	.3773	.4684	.4691	.3731	.3740
X6SI-0708-08	7/16	17/32	1/2	.4379	.4406	.5309	.5316	.4355	.4365
X6SI-0809-08	1/2	19/32	1/2	.5003	.5030	.5934	.5941	.4980	.4990
X6SI-0809-10	1/2	19/32	5/8			.5934	.5941	.4980	.4990
X6SI-0809-12	1/2	19/32	3/4			.5934	.5941	.4980	.4990
X6SI-1011-10	5/8	23/32	5/8	.6253	.6280	.7184	.7192	.6230	.6240
X6SI-1214-08	3/4	7/8	1/2	.7507	.7541	.8747	.8755	.7479	.7491
X6SI-1214-12	3/4	7/8	3/4			.8747	.8755	.7479	.7491
X6SI-1214-16	3/4	7/8	1			.8747	.8755	.7479	.7491
X6SI-1416-16	7/8	1	1	.8757	.8791	.9997	1.0005	.8729	.8741
X6SI-1618-08	1	1 1/8	1/2	1.0007	1.0041	1.1247	1.1255	.9979	.9991
X6SI-1618-12	1	1 1/8	3/4			1.1247	1.1255	.9979	.9991
X6SI-1618-16	1	1 1/8	1			1.1247	1.1255	.9979	.9991
X6SI-2426-12	1 1/2	1 21/32	3/4	1.5008	1.5048	1.6558	1.6568	1.4972	1.4988
X6SI-2426-16	1 1/2	1 21/32	1			1.6558	1.6568	1.4972	1.4988
X6SI-2426-24	1 1/2	1 21/32	1 1/2			1.6558	1.6568	1.4972	1.4988

iglide®
X6

iglide® X6 - Product Range

Flange bearing - Inch


 For tolerance values
 please refer to page 329

Order key

Type	Dimensions
X6 F I	-02 03-02
iglide® material	Form F (flange)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

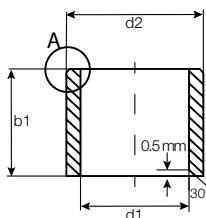
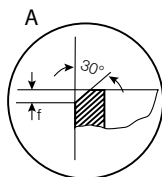
*Based on steel housing bore

Part Number	d1	d2	d3	b1	b2 -.0055	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
X6FI-0203-03	1/8	3/16	.312	3/16	.032	.1251	.1269	.1873	.1878	.1236	.1243
X6FI-0203-06	1/8	3/16	.312	3/8	.032			.1873	.1878	.1236	.1243
X6FI-0304-04	3/16	1/4	.375	1/4	.032	.1873	.1892	.2497	.2503	.1858	.1865
X6FI-0405-04	1/4	5/16	.500	1/4	.032	.2498	.2521	.3122	.3128	.2481	.2490
X6FI-0506-06	5/16	3/8	.562	3/8	.032	.3125	.3148	.3747	.3753	.3106	.3115
X6FI-0607-06	3/8	15/32	.687	3/8	.046	.3750	.3773	.4684	.4691	.3731	.3740
X6FI-0708-08	7/16	17/32	.750	1/2	.046	.4379	.4406	.5309	.5316	.4355	.4365
X6FI-0809-08	1/2	19/32	.875	1/2	.046	.5003	.5030	.5934	.5941	.4980	.4990
X6FI-0809-10	1/2	19/32	.875	5/8	.046			.5934	.5941	.4980	.4990
X6FI-0809-12	1/2	19/32	.875	3/4	.046			.5934	.5941	.4980	.4990
X6FI-1011-10	5/8	23/32	.937	5/8	.046	.6253	.6280	.7184	.7192	.6230	.6240
X6FI-1011-12	5/8	23/32	.937	1/2	.046			.7184	.7192	.6230	.6240
X6FI-1214-08	3/4	7/8	1.125	1/2	.062	.7507	.7541	.8747	.8755	.7479	.7491
X6FI-1214-12	3/4	7/8	1.125	3/4	.062			.8747	.8755	.7479	.7491
X6FI-1214-16	3/4	7/8	1.125	1	.062			.8747	.8755	.7479	.7491
X6FI-1416-12	7/8	1	1.250	3/4	.062	.8757	.8791	.9997	1.0005	.8729	.8741
X6FI-1416-16	7/8	1	1.250	1	.062			.9997	1.0005	.8729	.8741
X6FI-1618-08	1	1 1/8	1.375	1/2	.062	1.0007	1.0041	1.1247	1.1255	.9979	.9991
X6FI-1618-12	1	1 1/8	1.375	3/4	.062			1.1247	1.1255	.9979	.9991
X6FI-1618-16	1	1 1/8	1.375	1	.062			1.1247	1.1255	.9979	.9991
X6FI-2426-16	1 1/2	1 21/32	2.000	1	.078	1.5008	1.5048	1.6558	1.6568	1.4972	1.4988
X6FI-2426-24	1 1/2	1 21/32	2.000	1 1/2	.078			1.6558	1.6568	1.4972	1.4988

iglide® X6 - Product Range

Sleeve bearing - Metric

iglide®
X6



Order key

Type	Dimensions
X6 S M	-04 05-04
iglide® material	Form S (sleeve)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

For tolerance values please refer to page 329

Dimensions according to ISO 3547-1 and special dimensions

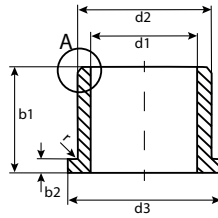
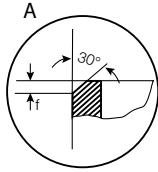
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
X6SM-0304-03	3.0	4.5	3.0	3.006	3.046	4.500	4.512	2.975	3.000
X6SM-0507-05	5.0	7.0	5.0	5.010	5.058	7.000	7.015	4.970	5.000
X6SM-0608-06	6.0	8.0	6.0	6.010	6.058	8.000	8.015	5.970	6.000
X6SM-0810-10	8.0	10.0	10.0	8.013	8.071	10.000	10.015	7.964	8.000
X6SM-1012-10	10.0	12.0	10.0	10.013	10.071	12.000	12.018	9.964	10.000
X6SM-1214-12	12.0	14.0	12.0	12.016	12.086	14.000	14.018	11.957	12.000
X6SM-1618-15	16.0	18.0	15.0	16.016	16.086	18.000	18.018	15.957	16.000
X6SM-2023-20	20.0	23.0	20.0	20.020	20.104	23.000	23.021	19.948	20.000
X6SM-2528-30	25.0	28.0	30.0	25.020	25.104	28.000	28.021	24.948	25.000
X6SM-3034-30	30.0	34.0	30.0	30.020	30.104	34.000	34.025	29.948	30.000
X6SM-3539-40	35.0	39.0	40.0	35.025	35.125	39.000	39.025	34.938	35.000
X6SM-4044-40	40.0	44.0	40.0	40.025	40.125	44.000	44.025	39.938	40.000
X6SM-5055-40	50.0	55.0	40.0	50.025	50.125	55.000	55.030	49.938	50.000

iglide®
X6

iglide® X6 - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
X6	F M -06 08 -04
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 $r = \max. 0.5$

 For tolerance values
please refer to page 329

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
X6FM-0304-05	3.0	4.5	7.5	5.0	0.75	3.006	3.046	4.500	4.512	2.975	3.000
X6FM-0507-05	5.0	7.0	11.0	5.0	1.0	5.010	5.058	7.000	7.015	4.970	5.000
X6FM-0608-06	6.0	8.0	12.0	6.0	1.0	6.010	6.058	8.000	8.015	5.970	6.000
X6FM-0810-10	8.0	10.0	15.0	10.0	1.0	8.013	8.071	10.000	10.015	7.964	8.000
X6FM-1012-10	10.0	12.0	18.0	10.0	1.0	10.013	10.071	12.000	12.018	9.964	10.000
X6FM-1012-25	10.0	12.0	18.0	25.0	1.0			12.000	12.018	9.964	10.000
X6FM-1214-12	12.0	14.0	20.0	12.0	1.0	12.016	12.086	14.000	14.018	11.957	12.000
X6FM-1618-12	16.0	18.0	24.0	12.0	1.0	16.016	16.086	18.000	18.018	15.957	16.000
X6FM-1618-17	16.0	18.0	24.0	17.0	1.0			18.000	18.018	15.957	16.000
X6FM-2023-21	20.0	23.0	30.0	21.0	1.5	20.020	20.104	23.000	23.021	19.948	20.000
X6FM-2528-21	25.0	28.0	35.0	21.0	1.5	25.020	25.104	28.000	28.021	24.948	25.000
X6FM-3034-26	30.0	34.0	42.0	26.0	2.0	30.020	30.104	34.000	34.025	29.948	30.000
X6FM-3034-40	30.0	34.0	42.0	40.0	2.0			34.000	34.025	29.948	30.000
X6FM-3539-26	35.0	39.0	47.0	26.0	2.0	35.025	35.125	39.000	39.025	34.938	35.000
X6FM-4044-40	40.0	44.0	52.0	40.0	2.0	40.025	40.125	44.000	44.025	39.938	40.000



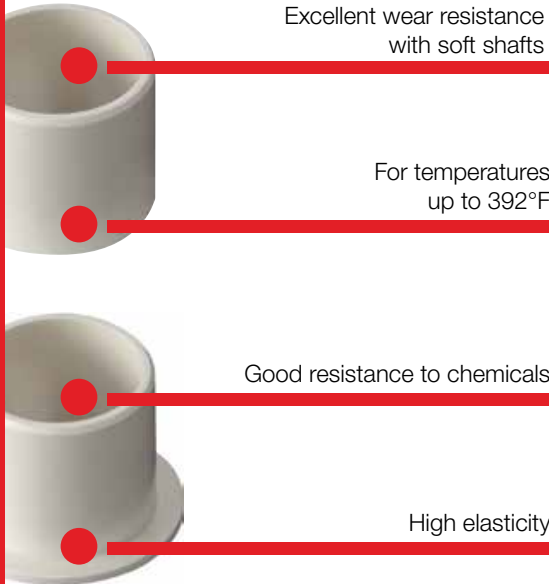
iglide® V400

- Excellent wear resistance with soft shaft materials
- For temperatures up to 392°F
- Good chemical resistance
- High elasticity

iglide®
V400

iglide® V400 - For soft shafts, up to 392°F

High wear resistance



Highly wear-resistant bearing for soft shafts and for temperatures up to 392°F. Low moisture absorption and good resistance to chemicals.



- When extreme wear resistance is required with soft shafts
- When the highest wear resistance at temperatures above 212°F is required
- When vibrations and edge pressure are present
- When the bearing should be resistant to chemicals



- For hardened shafts
 - iglide® L280
- For applications at normal temperatures
 - iglide® G300
 - iglide® J
 - iglide® L280
- When a cost-effective universal bearing is required
 - iglide® G300



Available from stock

Detailed information about delivery time online.



max. +392°F
min. -58°F



Price breaks online

No minimum order.



Ø 6 to 20 mm
more dimensions on request



Typical application areas

- Plant construction
- Automotive
- Automation
- Aerospace engineering
- Mechatronics

iglide® V400 - Technical Data

**iglide®
V400**

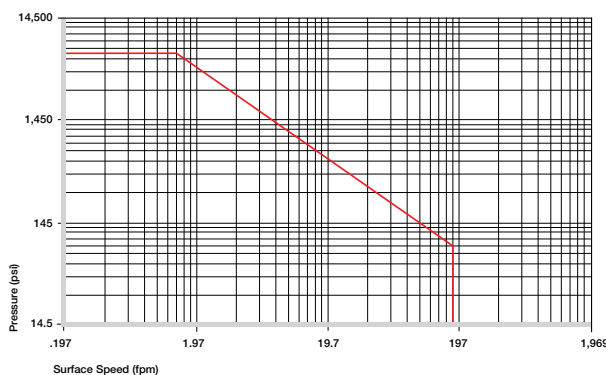
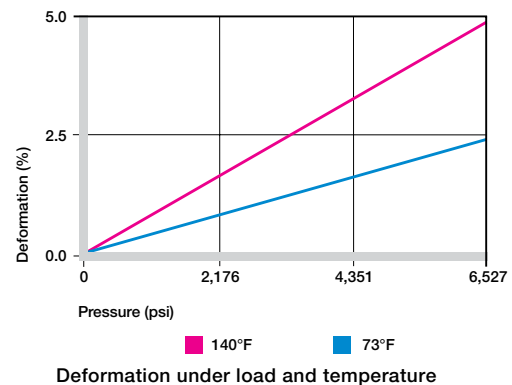
Material Properties Table

General Properties	Unit	iglide® V400	Testing Method
Density	g/cm ³	1.51	
Color		white	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.1	DIN 53495
Max. moisture absorption	% weight	0.2	
Coefficient of friction, dynamic against steel	μ	0.15 - 0.20	
pv value, max. (dry)	psi x fpm	14,000	
Mechanical Properties			
Modulus of elasticity	psi	652,670	DIN 53457
Tensile strength at 68°F	psi	13,779	DIN 53452
Compressive strength	psi	6,819	
Permissible static surface pressure (68°F)	psi	6,527	
Shore D-hardness		74	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	392	
Max. application temperature, short-term	°F	464	
Min. application temperature	°F	-58	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	3	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹²	DIN IEC 93
Surface resistance	Ω	> 10 ¹²	DIN 53482

Compressive Strength

With increasing temperatures, the compressive strength of iglide® V400 plain bearings decreases. The graph shows this inverse relationship. The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this.

► Compressive strength, Page 63



Permissible pv values for iglide® V400 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® V400 also permits high surface speeds due to the high temperature resistance. The very favorable coefficients of friction of the bearing enable maximum rotating surface speeds up to 256 fpm. Even higher are the permitted speeds for linear movement and 590 fpm can be attained on the short term.

► Surface speed, Page 64

► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	177	256
Oscillating	118	177
Linear	393	590

Maximum surface speeds

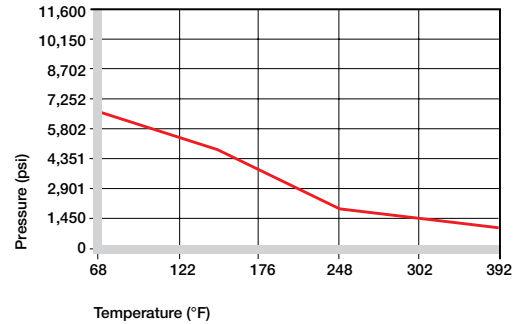
iglide®
V400

iglide® V400 - Technical Data

Temperatures

The long-term maximum permissible application temperature is +392°F, for temperatures over +212°F an additional securing is required. Then, however, the wear resistance of the bearings is very good and adopts a leading position among all iglide® materials. The compressive strength of iglide® V400 plain bearings decreases with increasing temperatures. The graph shows this relationship.

► Application temperatures, Page 67



Recommended maximum permissible static surface pressure of iglide® V400 as a result of the temperature

iglide® V400	Application Temperature
Minimum	-58°F
Max. long-term	+392°F
Max. short-term	+464°F
Additional axial securing	+212°F

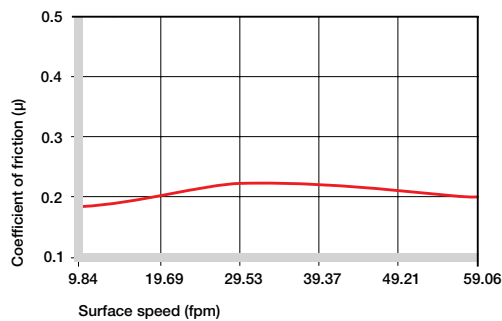
Temperature limits for iglide® V400

Friction and Wear

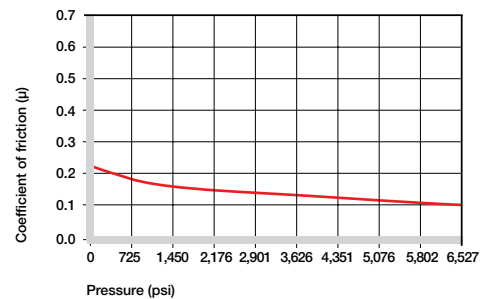
The coefficient of friction is dependent on the bearing's stressing capacity. The coefficients of friction of iglide® V400 are very constant. No other iglide® bearing material exhibits a lower variance in the coefficients of friction, even when the shaft material is altered.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® V400 as a function of the running speed; p = 109 psi



Coefficients of friction of iglide® V400 as a function of the load, v = 1.96 fpm

iglide® V400	Coefficient of Friction
Dry	0.15 - 0.20
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® V400 against steel
(Shaft finish = 40 rms, 50 HRC)

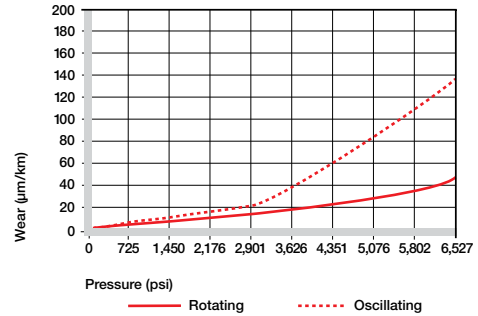
iglide® V400 - Technical Data

iglide®
V400

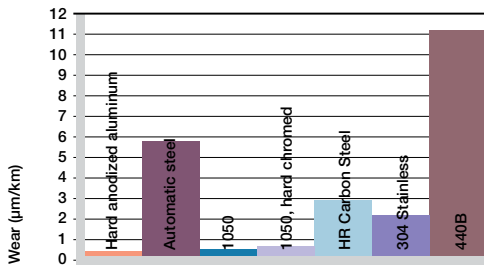
Shaft Materials

The influence of the shaft material on the wear resistance is bigger than on the friction. Here, even at low loads 109 psi, significant differences occur, as shown in diagram 06. With regard to wear, iglide® V400 is more suitable for rotating applications rather than oscillating applications.

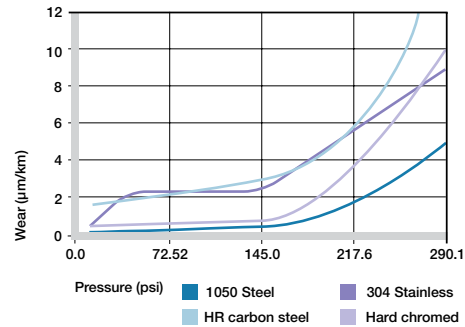
► Shaft Materials, Page 71



Wear for oscillating and rotating applications with 1050 hard chromed and ground steel as a function of the pressure



Wear, rotating application with different shaft materials, $p = 145$ psi, $v = 59$ fpm

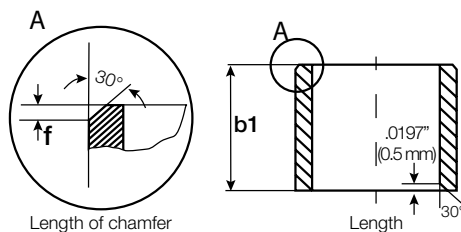


Wear with different shaft materials in rotational operation, as a function of the pressure

Installation Tolerances

iglide® V400 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		
Length (inches)	Tolerance (h13) (inches)	Length of Chamfer (f) Based on d1
0.1181 to 0.2362	-0.0000 /-0.0071	$f = .012 \rightarrow d_1 .040'' - .236''$
0.2362 to 0.3937	-0.0000 /-0.0087	$f = .019 \rightarrow d_1 > .236'' - .472''$
0.3937 to 0.7086	-0.0000 /-0.0106	$f = .031 \rightarrow d_1 > .472'' - 1.18''$
0.7086 to 1.1811	-0.0000 /-0.0130	$f = .047 \rightarrow d_1 > 1.18''$
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		
Length (mm)	Tolerance (h13) (mm)	Length of Chamfer (f) Based on d1
1 to 3	-0 /-140	$f = 0.3 \rightarrow d_1 1 - 6$ mm
> 3 to 6	-0 /-180	$f = 0.5 \rightarrow d_1 > 6 - 12$ mm
> 6 to 10	-0 /-220	$f = 0.8 \rightarrow d_1 > 12 - 30$ mm
>10 to 18	-0 /-270	$f = 1.2 \rightarrow d_1 > 30$ mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

**iglide®
V400**

iglide® V400 - Technical Data

Chemical Resistance

iglide® V400 plain bearings are feature good chemical resistance. They are resistant to detergents, greases, oils, alcohol, solvents, diluted bases, as well as to diluted acids.

The moisture absorption of iglide® V400 plain bearings is only 0.2 % after saturation in water.

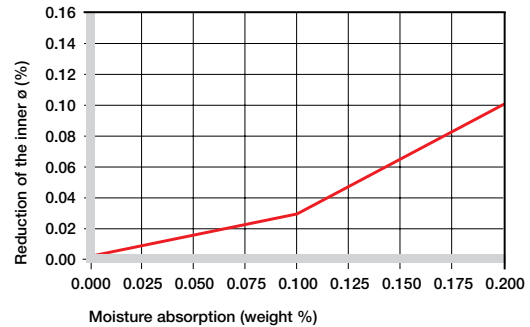
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	+
Strong acids	+
Weak alkaline	+
Strong alkaline	-

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® V400

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® V400 plain bearings

Radiation Resistance

iglide® V400 bearings are resistant to a radiation intensity of $2 \cdot 10^4$ Gy. Higher radiation affects their mechanical characteristics.

UV-Resistance

iglide® V400 plain bearings are resistant to UV radiation to a large extent.

Vacuum

In a vacuum, iglide® V400 plain bearings can only be used to a limited degree. Outgassing takes place.

Electrical Properties

iglide® V400 plain bearings are electrically insulating.

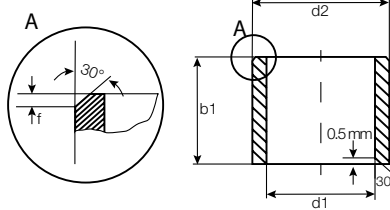
iglide® V400	
Specific volume resistance	> 10^{12} Ωcm
Surface resistance	> 10^{12} Ω

Electrical properties of iglide® V400

iglide® V400 - Product Range

Sleeve bearing - Metric

iglide®
V400



Order key

Type	Dimensions
V400 S	M-04 05-04
iglide® material	Form S (sleeve)
	Metric
	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

For tolerance values
please refer to page 339

Dimensions according to ISO 3547-1 and special dimensions

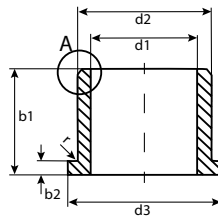
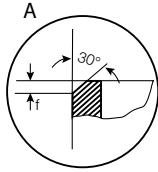
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
V400SM-0608-06	6.0	8.0	6.0	6.010	6.058	8.000	8.015	5.970	6.000
V400SM-0810-10	8.0	10.0	10.0	8.013	8.071	10.000	10.015	7.964	8.000
V400SM-1012-10	10.0	12.0	10.0	10.013	10.071	12.000	12.018	9.964	10.000
V400SM-1214-12	12.0	14.0	12.0	12.016	12.086	14.000	14.018	11.957	12.000
V400SM-1618-15	16.0	18.0	15.0	16.016	16.086	18.000	18.018	15.957	16.000
V400SM-2023-20	20.0	23.0	20.0	20.020	20.104	23.000	23.021	19.948	20.000

iglide®
V400

iglide® V400 - Product Range

Flange bearing - Metric


Order key
 $r = \max. 0.5$

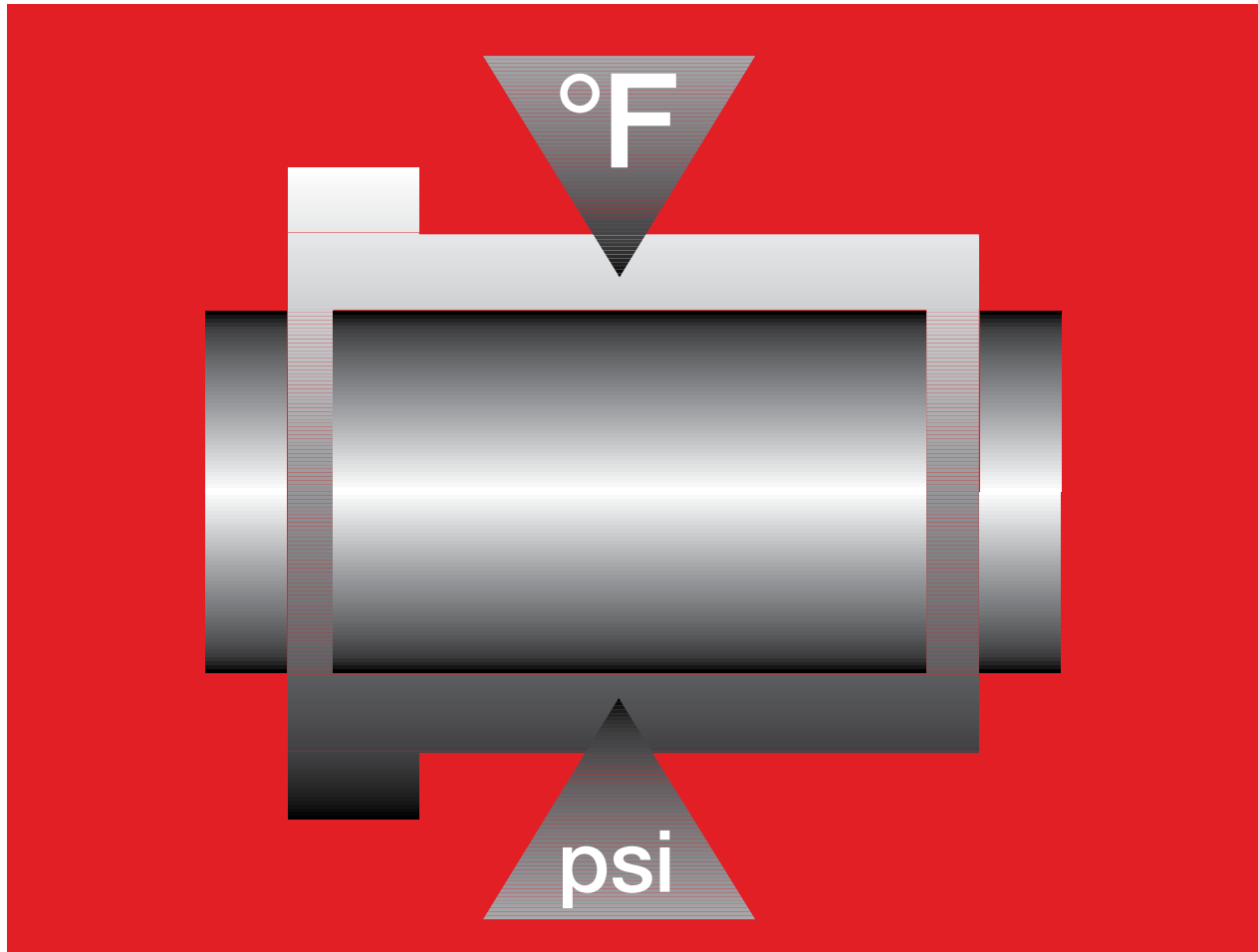
 For tolerance values
please refer to page 339

Type	Dimensions
V400 F M	-06 08-04
iglide® material	Form F (flange)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
V400FM-0608-06	6.0	8.0	12.0	6.0	1.0	6.010	6.058	8.000	8.015	5.970	6.000
V400FM-0810-10	8.0	10.0	15.0	10.0	1.0	8.013	8.071	10.000	10.015	9.964	10.000
V400FM-1012-10	10.0	12.0	18.0	10.0	1.0	10.013	10.071	12.000	12.018	9.964	10.000
V400FM-1214-12	12.0	14.0	20.0	12.0	1.0	12.016	12.086	14.000	14.018	11.957	12.000
V400FM-1618-17	16.0	18.0	24.0	17.0	1.0	16.016	16.086	18.000	18.018	15.957	16.000
V400FM-1820-20	18.0	20.0	26.0	20.0	1.0	18.016	18.086	20.000	20.021	17.957	18.000
V400FM-2023-21	20.0	23.0	30.0	21.5	1.5	20.020	20.104	23.000	23.021	20.948	21.000



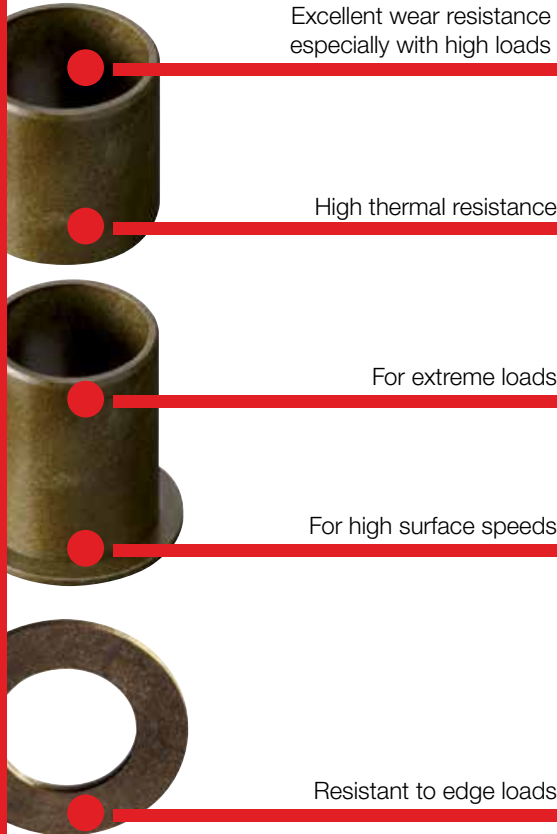
iglide® Z

- Excellent wear resistance especially with high loads
- High thermal resistance
- For extreme loads
- For high surface speeds
- Resistant to edge loads

iglide®
Z

iglide® Z - For high dynamic loads, wear resistant

For extreme loads



Excellent wear resistance
especially with high loads

High thermal resistance

For extreme loads

For high surface speeds

Resistant to edge loads

Extremely high compressive strength coupled with high elasticity enables iglide® Z bearings to attain their prominent features in association with soft shafts, edge loads and impacts. At the same time, the bearings are suitable for temperatures up to 482°F.



- For continuous temperatures up to 482°F
- For high radial loads and high temperature
- For high surface speeds
- For edge loading in connection with high surface pressures



- For low loads and temperatures
 - iglide® P
- When a cost effective all-around bearing is sought
 - iglide® G300
- When electrically conductive bearings are needed
 - iglide® F
 - iglide® H
 - iglide® F



Available from stock

Detailed information about delivery time online.



max. +482°F
min. -148°F



Price breaks online

No minimum order.



Ø 1/8 to 2-1/4 inches
more dimensions on request



Typical application areas

- Construction machinery
- Machine building
- Textile technology
- Glass industry
- Aerospace engineering



Ø 4 to 120 mm
more dimensions on request



iglide® Z - Technical Data

 iglide®
Z

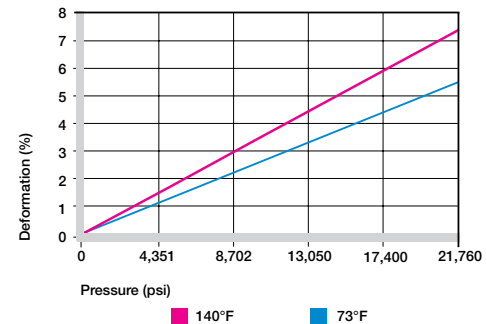
Material Properties Table

General Properties	Unit	iglide® Z	Testing Method
Density	g/cm ³	1.40	
Color		brown	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.3	DIN 53495
Max. moisture absorption	% weight	1.1	
Coefficient of friction, dynamic against steel	μ	0.06 - 0.14	
pv value, max. (dry)	psi x fpm	24,000	
Mechanical Properties			
Modulus of elasticity	psi	348,100	DIN 53457
Tensile strength at 68°F	psi	13,775	DIN 53452
Compressive strength	psi	9,425	
Permissible static surface pressure (68°F)	psi	21,750	
Shore D-hardness		81	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	482	
Max. application temperature, short-term	°F	590	
Min. application temperature	°F	-148	
Thermal conductivity	W/m x K	0.62	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	4	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹¹	DIN IEC 93
Surface resistance	Ω	> 10 ¹¹	DIN 53482

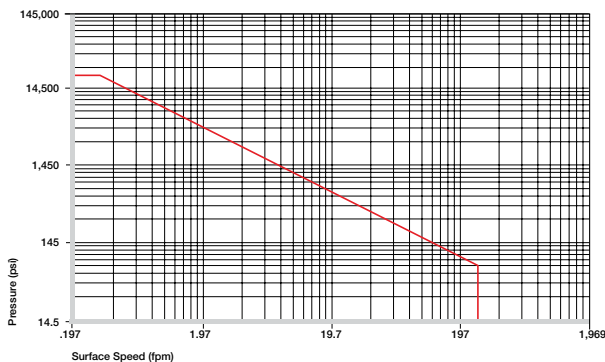
Compressive Strength

Iglike® Z is a high-temperature bearing material, which is suited for applications with very high loads. For radial pressures between 7,250 and 14,500 psi, there is no better dry running wear-resistant iglike® material. The graph shows the elastic deformation of iglike® Z for radial loads. At the maximum permissible load of 14,500, the deformation is approximately 5.5% at room temperature.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglike® Z running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglike® Z is suited for both average and high speeds due to its high thermal resistance. The maximum values given in the table can only be achieved at the lowest pressure loads. At the given speeds, friction can cause temperature to increase to maximum permissible levels.

- Surface speed, Page 64
- pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	295	689
Oscillating	216	492
Linear	984	1181

Maximum surface speeds

Temperatures

The maximum permissible short-term temperature is 590°F. This represents the highest thermal resistance of any iglide® material.

With increasing temperatures, the compressive strength of iglide® Z plain bearings decreases. The graph shows this relationship.

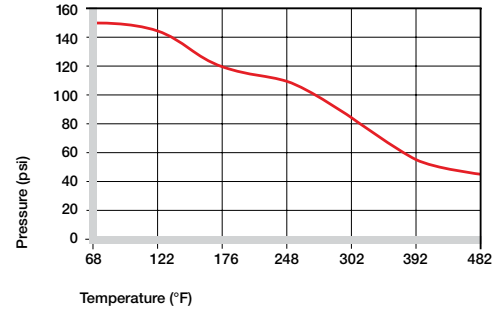
The ambient temperatures prevalent in the bearing system also have an effect on the bearing wear. With increasing temperatures, the wear increases.

The graph shows that when the temperature increases from room temperature to 302°F, the wear of iglide® Z only doubles. At high temperatures, iglide® Z is also the most wear-resistant material while running dry.

► Application temperatures, Page 67

iglide® Z	Application Temperature
Minimum	- 148°F
Max. long-term	+482°F
Max. short-term	+590°F
Additional axial securing	+293°F

Temperature limits for iglide® Z



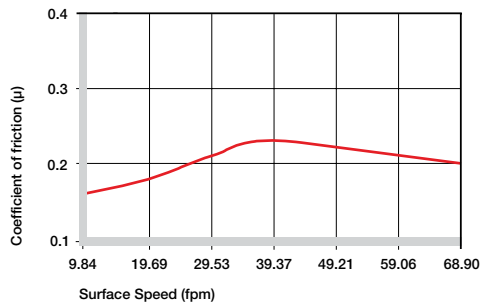
Recommended maximum permissible static surface pressure of iglide® Z as a result of the temperature

Friction and Wear

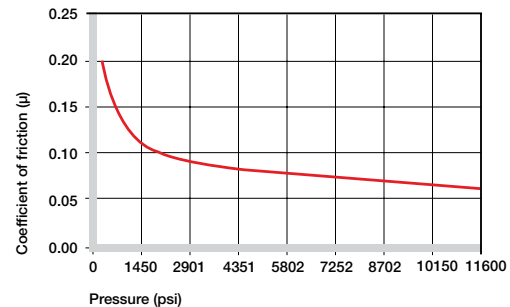
Similar to wear resistance, the coefficient of friction only changes slightly with increasing load. Friction and wear are also dependent, to a large degree, on the shaft partner. Shafts that are too smooth increase both the coefficient of friction and the wear of the bearing. iglide® Z proves to be relatively resistant in regard to the shaft surface. For iglide® Z a ground surface with an average roughness range of 16-32 rms is recommended for the shaft.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® Z as a result of the running speed; p = 108 psi



Coefficients of friction of iglide® Z as a result of the load, v = 1.97 fpm

iglide® Z	Coefficient of Friction
Dry	0.06 - 0.14
Grease	0.09
Oil	0.04
Water	0.04

Table 15.4: Coefficients of friction for iglide® Z against steel (Shaft finish = 40 rms, 50 HRC)

iglide® Z - Technical Data

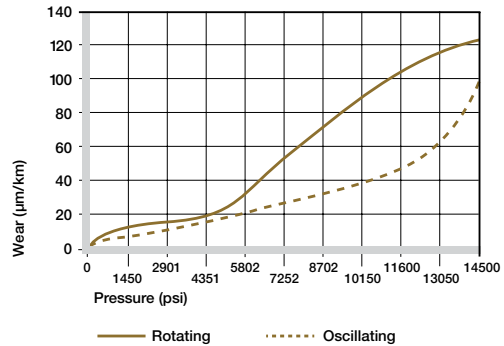
iglide®
Z

Shaft Materials

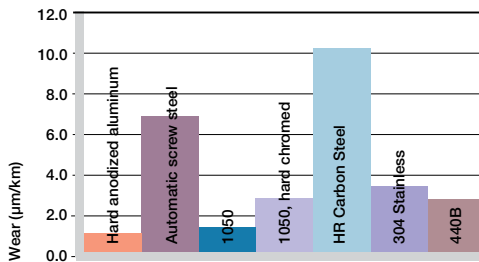
The diagrams show wear rates in the lower load range, which are very similar to those of other iglide® materials. In the upper range on the other hand, iglide® Z outperforms all other materials in wear resistance. Provided a 1050 hard chromed shaft is used, the wear at 6525 psi is still only 15 µm/km.

For low loads, iglide® Z plain bearings wear in oscillating operation less than in rotation. 303 Stainless Steel and hard-chromed shaft are of interest here. The value 0.5 µm/km shows 303 Stainless provides the lowest wear in oscillating movements at 280 psi. For higher loads, hard-chromed shafts outperform 303 Stainless. However even at 14,500 psi, iglide® Z obtains excellent wear values. If the shaft material you plan to use is not contained in this list, please contact us.

► Shaft Materials, Page 71



Wear for oscillating and rotating applications with 1050 hard chromed

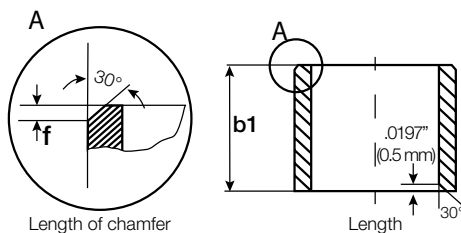


Wear of iglide® Z rotating applications with different shaft materials, p=108 psi, v=98 fpm

Installation Tolerances

iglide® Z plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

- Tolerance table, Page 75
- Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance

iglide® Z plain bearings have a good resistance to chemicals. They have an excellent resistance against organic solvents, fuels, oils and greases. The material is only partially resistant against weak acids. The moisture absorption of iglide® Z plain bearings is approximately 0.3% in standard atmosphere. The saturation limit in water is 1.1%.

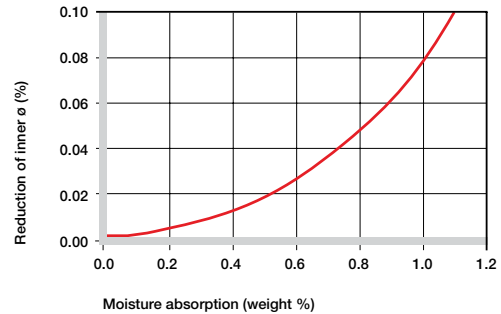
► Chemical table, Page 1364

Medium	Resistance
Alcohol	0
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	+
Strong acids	-
Weak alkaline	+
Strong alkaline	-

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® Z

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® Z plain bearings

Radiation Resistance

Plain bearings made from iglide® Z are resistant to radiation up to an intensity of 1×10^5 Gy.

UV Resistance

UV radiation causes approximately 50% decline of the tribological properties (wear) of plain bearings made from iglide® Z.

Vacuum

For use in a vacuum environment, moisture content is released as vapor. Therefore, only dehumidified bearings made of iglide® Z are suitable for a vacuum environment.

Electrical Properties

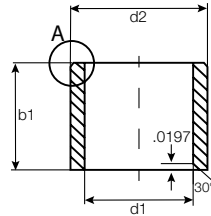
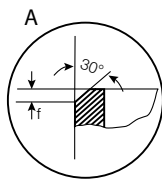
iglide® Z plain bearings are electrically insulating.

iglide® Z	
Specific volume resistance	> $10^{11} \Omega\text{cm}$
Surface resistance	> $10^{11} \Omega$

Electrical properties of iglide® Z

iglide® Z - Product Range

Sleeve bearing - Inch

 iglide®
Z

Order key

Type	Dimensions
Z S I	-02 03-03
iglide® material	Form S (sleeve)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

 For tolerance values
 please refer to page 347

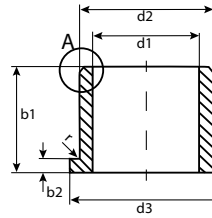
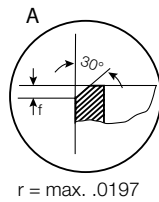
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
ZSI-0203-03	1/8	3/16	3/16	.1247	.1266	.1873	.1878	.1236	.1243
ZSI-0304-06	3/16	1/4	3/16	.1873	.1892	.2497	.2503	.1858	.1865
ZSI-0405-08	1/4	5/16	1/2	.2498	.2521	.3122	.3128	.2481	.2490
ZSI-0506-06	5/16	3/8	3/8	.3120	.3143	.3747	.3753	.3106	.3115
ZSI-0607-04	3/8	15/32	1/4	.3745	.3768	.4685	.4691	.3731	.3740
ZSI-0607-06	3/8	15/32	3/8			.4685	.4691	.3731	.3740
ZSI-0607-08	3/8	15/32	1/2			.4685	.4691	.3731	.3740
ZSI-0708-08	7/16	17/32	1/2	.4371	.4399	.5307	.5316	.4355	.4365
ZSI-0708-12	7/16	17/32	3/4			.5307	.5316	.4355	.4365
ZSI-0809-12	1/2	19/32	3/4	.4996	.5024	.5933	.5941	.4980	.4990
ZSI-0810-12	1/2	5/8	3/4	.5006	.5034	.6248	.6260	.4990	.5000
ZSI-1011-12	5/8	23/32	3/4	.6246	.6274	.7185	.7192	.6230	.6240
ZSI-1214-12	3/4	7/8	3/4	.7499	.7532	.8748	.8755	.7479	.7491
ZSI-1214-16	3/4	7/8	1			.8748	.8755	.7479	.7491
ZSI-1416-16	7/8	1	1	.8749	.8782	.9997	1.0005	.8729	.8741
ZSI-1618-16	1	1 1/8	1	.9999	1.0032	1.1247	1.1255	.9979	.9991
ZSI-1618-24	1	1 1/8	1 1/2			1.1247	1.1255	.9979	.9991
ZSI-1820-24	1 1/8	1 9/32	1 1/2	1.1246	1.1279	1.2807	1.2818	1.1226	1.1238
ZSI-2022-20	1 1/4	1 13/32	1 1/4	1.2498	1.2537	1.4059	1.4068	1.2472	1.2488
ZSI-2426-24	1 1/2	1 21/32	1 1/2	1.4998	1.5037	1.6559	1.6568	1.4972	1.4988
ZSI-2831-32	1 3/4	1 15/16	2	1.7497	1.7536	1.9370	1.9381	1.7471	1.7487
ZSI-3235-16	2	2 3/16	1	1.9993	2.0040	2.1870	2.1883	1.9969	1.9981
ZSI-3235-32	2	2 3/16	2			2.1870	2.1883	1.9969	1.9981
ZSI-3639-32	2 1/4	2 7/16	2	2.2519	2.2566	2.4366	2.4377	2.2489	2.2507

iglide®
Z

iglide® Z - Product Range

Flange bearing - Inch


 For tolerance values
please refer to page 347

Order key

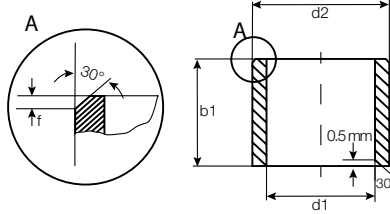
Type	Dimensions
Z F I	-03 04-06
iglide® material	Form F (flange)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2 -.0055	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
ZFI-0304-06	3/16	1/4	3/8	.375	.032	.1873	.1892	.2497	.2503	.1858	.1865
ZFI-0405-08	1/4	5/16	1/2	.500	.032	.2495	.2518	.3122	.3128	.2476	.2490
ZFI-0506-06	5/16	3/8	3/8	.562	.032	.3120	.3143	.3747	.3753	.3101	.3115
ZFI-0607-08	3/8	15/32	1/2	.687	.046	.3745	.3768	.4684	.4691	.3731	.3740
ZFI-0708-08	7/16	17/32	1/2	.750	.046	.4371	.4399	.5307	.5314	.4348	.4365
ZFI-0809-08	1/2	19/32	1/2	.875	.046	.5003	.5030	.5934	.5941	.4980	.4990
ZFI-0809-12	1/2	19/32	3/4	.875	.046			.5934	.5941	.4980	.4990
ZFI-1012-08	5/8	3/4	1/2	1.000	.062	.6256	.6284	.7500	.7508	.6240	.6250
ZFI-1012-16	5/8	3/4	1	1.000	.062			.7500	.7508	.6240	.6250
ZFI-1214-12	3/4	7/8	3/4	1.125	.062	.7499	.7532	.8748	.8755	.7479	.7491
ZFI-1214-16	3/4	7/8	1	1.125	.062			.8748	.8755	.7479	.7491
ZFI-1416-12	7/8	1	3/4	1.250	.062	.8749	.8782	.9997	1.0005	.8729	.8741
ZFI-1416-16	7/8	1	1	1.250	.062			.9997	1.0005	.8729	.8741
ZFI-1618-08	1	1 1/8	1/2	1.375	.062	.9999	1.0032	1.1247	1.1255	.9979	.9991
ZFI-1618-16	1	1 1/8	1	1.375	.062			1.1247	1.1255	.9979	.9991
ZFI-1618-24	1	1 1/8	1 1/2	1.375	.062			1.1247	1.1255	.9979	.9991
ZFI-1820-12	1 1/8	1 9/32	3/4	1.562	.078	1.1246	1.1279	1.2807	1.2818	1.1226	1.1238
ZFI-1820-24	1 1/8	1 9/32	1 1/2	1.562	.078			1.2807	1.2818	1.1226	1.1238
ZFI-2022-20	1 1/4	1 13/32	1 1/4	1.687	.078	1.2498	1.2537	1.4059	1.4068	1.2472	1.2488
ZFI-2022-24	1 1/4	1 13/32	1 1/2	1.687	.078			1.4059	1.4068	1.2472	1.2488
ZFI-2426-24	1 1/2	1 21/32	1 1/2	2.000	.078	1.4998	1.5037	1.6559	1.6568	1.4972	1.4988
ZFI-2831-32	1 3/4	1 15/16	2	2.375	.093	1.7497	1.7536	1.9370	1.9381	1.7471	1.7487
ZFI-3235-32	2	2 3/16	2	2.625	.093	1.9993	2.0040	2.1870	2.1883	1.9969	1.9981

iglide® Z - Product Range

Sleeve bearing - Metric

 iglide®
Z

Order key

Type	Dimensions
Z S M	-04 05-04

iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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 For tolerance values
 please refer to page 347

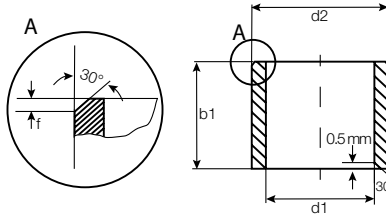
 Dimensions according to ISO 3547-1 and special dimensions
 *Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
ZSM-0405-04	4.0	5.5	4.0	4.010	4.058	5.500	5.512	3.970	4.000
ZSM-0405-06	4.0	5.5	6.0			5.500	5.512	3.970	4.000
ZSM-0405-08	4.0	5.5	8.0			5.500	5.512	3.970	4.000
ZSM-0507-05	5.0	7.0	5.0	5.010	5.058	7.000	7.015	4.970	5.000
ZSM-0507-09	5.0	7.0	9.0			7.000	7.015	4.970	5.000
ZSM-0507-10	5.0	7.0	10.0			7.000	7.015	4.970	5.000
ZSM-0608-06	6.0	8.0	6.0	6.010	6.058	8.000	8.015	5.970	6.000
ZSM-0608-08	6.0	8.0	8.0			8.000	8.015	5.970	6.000
ZSM-0608-10	6.0	8.0	10.0			8.000	8.015	5.970	6.000
ZSM-0608-12	6.0	8.0	12.0			8.000	8.015	5.970	6.000
ZSM-0610-06	6.0	8.0	6.0	6.010	6.058	10.000	10.015	5.970	6.000
ZSM-0810-06	8.0	10.0	6.0	8.013	8.071	10.000	10.015	7.964	8.000
ZSM-0810-08	8.0	10.0	8.0			10.000	10.015	7.964	8.000
ZSM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
ZSM-0810-12	8.0	10.0	12.0			10.000	10.015	7.964	8.000
ZSM-1012-08	10.0	12.0	8.0	10.013	10.071	12.000	12.018	9.964	10.000
ZSM-1012-10	10.0	12.0	10.0			12.000	12.018	9.964	10.000
ZSM-1012-12	10.0	12.0	12.0			12.000	12.018	9.964	10.000
ZSM-1012-15	10.0	12.0	15.0			12.000	12.018	9.964	10.000
ZSM-1012-17	10.0	12.0	17.0			12.000	12.018	9.964	10.000
ZSM-1012-20	10.0	12.0	20.0			12.000	12.018	9.964	10.000
ZSM-1214-08	12.0	14.0	8.0	12.016	12.086	14.000	14.018	11.957	12.000
ZSM-1214-10	12.0	14.0	10.0			14.000	14.018	11.957	12.000
ZSM-1214-12	12.0	14.0	12.0			14.000	14.018	11.957	12.000
ZSM-1214-15	12.0	14.0	15.0			14.000	14.018	11.957	12.000
ZSM-1214-20	12.0	14.0	20.0			14.000	14.018	11.957	12.000
ZSM-1315-10	13.0	15.0	10.0			13.016	13.086	15.000	15.018
ZSM-1315-20	13.0	15.0	10.0	15.000	15.018			12.957	13.000
ZSM-1517-15	15.0	17.0	15.0	15.016	15.086	17.000	17.018	14.957	15.000
ZSM-1517-20	15.0	17.0	20.0			17.000	17.018	14.957	15.000
ZSM-1517-22	15.0	17.0	22.0			17.000	17.018	14.957	15.000
ZSM-1517-25	15.0	17.0	25.0			17.000	17.018	14.957	15.000
ZSM-1618-12	16.0	18.0	12.0	16.016	16.086	18.000	18.018	15.957	16.000
ZSM-1618-15	16.0	18.0	15.0			18.000	18.018	15.957	16.000
ZSM-1618-20	16.0	18.0	20.0			18.000	18.018	15.957	16.000
ZSM-1618-25	16.0	18.0	25.0			18.000	18.018	15.957	16.000
ZSM-1820-15	18.0	20.0	15.0			18.016	18.086	20.000	20.021

iglide®
Z

iglide® Z - Product Range

Sleeve bearing - Metric


Order key

Type	Dimensions
Z S M	-04 05-04
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
please refer to page 347

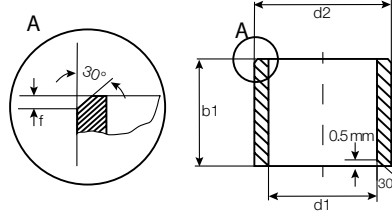
Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
ZSM-1820-20	18.0	20.0	20.0	18.016	18.086	20.000	20.021	17.957	18.000
ZSM-1820-24	18.0	20.0	24.0			20.000	20.021	17.957	18.000
ZSM-1820-25	18.0	20.0	25.0			20.000	20.021	17.957	18.000
ZSM-2022-15	20.0	22.0	15.0	20.020	20.104	22.000	22.021	19.948	20.000
ZSM-2023-10	20.0	23.0	10.0	20.020	20.104	23.000	23.021	19.948	20.000
ZSM-2023-15	20.0	23.0	15.0			23.000	23.021	19.948	20.000
ZSM-2023-20	20.0	23.0	20.0			23.000	23.021	19.948	20.000
ZSM-2023-25	20.0	23.0	25.0			23.000	23.021	19.948	20.000
ZSM-2023-30	20.0	23.0	30.0			23.000	23.021	19.948	20.000
ZSM-2023-35	20.0	23.0	35.0			23.000	23.021	19.948	20.000
ZSM-2224-30	22.0	24.0	30.0			22.020	22.104	24.000	24.021
ZSM-2225-15	22.0	25.0	15.0	22.020	22.104	25.000	25.021	21.948	22.000
ZSM-2225-20	22.0	25.0	20.0			25.000	25.021	21.948	22.000
ZSM-2225-25	22.0	25.0	25.0			25.000	25.021	21.948	22.000
ZSM-2225-30	22.0	25.0	30.0			25.000	25.021	21.948	22.000
ZSM-2427-15	24.0	27.0	15.0	24.020	24.104	27.000	27.021	23.948	24.000
ZSM-2427-20	24.0	27.0	20.0			27.000	27.021	23.948	24.000
ZSM-2427-25	24.0	27.0	25.0			27.000	27.021	23.948	24.000
ZSM-2427-30	24.0	27.0	30.0			27.000	27.021	23.948	24.000
ZSM-2528-15	25.0	28.0	15.0	25.020	25.104	28.000	28.021	24.948	25.000
ZSM-2528-20	25.0	28.0	20.0			28.000	28.021	24.948	25.000
ZSM-2528-25	25.0	28.0	25.0			28.000	28.021	24.948	25.000
ZSM-2528-30	25.0	28.0	30.0			28.000	28.021	24.948	25.000
ZSM-2528-48	25.0	28.0	48.0			28.000	28.021	24.948	25.000
ZSM-2530-20	25.0	30.0	20.0	25.020	25.104	30.000	30.021	24.948	25.000
ZSM-2630-24	26.0	30.0	24.0	26.020	26.104	30.000	30.021	25.948	26.000
ZSM-2832-20	28.0	32.0	20.0	28.020	28.104	32.000	32.021	27.948	28.000
ZSM-2832-25	28.0	32.0	25.0			32.000	32.021	27.948	28.000
ZSM-2832-30	28.0	32.0	30.0			32.000	32.021	27.948	28.000
ZSM-2834-29	28.0	34.0	29.0	28.020	28.104	34.000	34.021	27.948	28.000
ZSM-3034-20	30.0	34.0	20.0	30.020	30.104	34.000	34.025	29.948	30.000
ZSM-3034-25	30.0	34.0	25.0			34.000	34.025	29.948	30.000
ZSM-3034-30	30.0	34.0	30.0			34.000	34.025	29.948	30.000
ZSM-3034-40	30.0	34.0	40.0			34.000	34.025	29.948	30.000
ZSM-3235-44	32.0	35.0	44.0	32.025	32.125	35.000	35.025	31.938	32.000
ZSM-3236-20	32.0	36.0	20.0	32.025	32.125	36.000	36.025	31.938	32.000
ZSM-3236-30	32.0	36.0	30.0			36.000	36.025	31.938	32.000

iglide® Z - Product Range

Sleeve bearing - Metric

 iglide®
Z

Order key

Type	Dimensions
Z S M	-04 05-04

iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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 For tolerance values
please refer to page 347

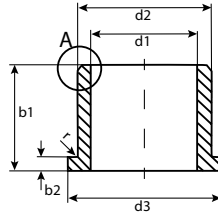
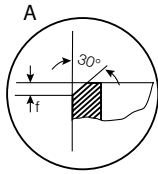
 Dimensions according to ISO 3547-1 and special dimensions
 *Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
ZSM-3236-40	32.0	36.0	40.0	32.025	32.125	36.000	36.025	31.938	32.000
ZSM-3539-20	35.0	39.0	20.0	35.025	35.125	39.000	39.025	34.938	35.000
ZSM-3539-30	35.0	39.0	30.0			39.000	39.025	34.938	35.000
ZSM-3539-35	35.0	39.0	35.0			39.000	39.025	34.938	35.000
ZSM-3539-40	35.0	39.0	40.0			39.000	39.025	34.938	35.000
ZSM-3539-50	35.0	39.0	50.0			39.000	39.025	34.938	35.000
ZSM-4044-15	40.0	44.0	15.0	40.025	40.125	44.000	44.025	39.938	40.000
ZSM-4044-20	40.0	44.0	20.0			44.000	44.025	39.938	40.000
ZSM-4044-30	40.0	44.0	30.0			44.000	44.025	39.938	40.000
ZSM-4044-40	40.0	44.0	40.0			44.000	44.025	39.938	40.000
ZSM-4044-47	40.0	44.0	47.0			44.000	44.025	39.938	40.000
ZSM-4044-50	40.0	44.0	50.0			44.000	44.025	39.938	40.000
ZSM-4550-20	45.0	50.0	20.0	45.025	45.125	50.000	50.025	44.938	45.000
ZSM-4550-30	45.0	50.0	30.0			50.000	50.025	44.938	45.000
ZSM-4550-40	45.0	50.0	40.0			50.000	50.025	44.938	45.000
ZSM-4550-50	45.0	50.0	50.0			50.000	50.025	44.938	45.000
ZSM-5055-20	50.0	55.0	20.0	50.025	50.125	55.000	55.030	49.938	50.000
ZSM-5055-30	50.0	55.0	30.0			55.000	55.030	49.938	50.000
ZSM-5055-40	50.0	55.0	40.0			55.000	55.030	49.938	50.000
ZSM-5055-50	50.0	55.0	50.0			55.000	55.030	49.938	50.000
ZSM-5055-60	50.0	55.0	60.0			55.000	55.030	49.938	50.000
ZSM-5560-60	55.0	60.0	60.0	55.025	55.125	60.000	60.030	54.926	55.000
ZSM-6065-50	60.0	65.0	50.0	60.025	60.125	65.000	65.030	59.926	60.000
ZSM-6065-60	60.0	65.0	60.0			65.000	65.030	59.926	60.000
ZSM-6570-34	65.0	70.0	34.0	65.025	65.125	70.000	70.030	64.926	65.000
ZSM-7075-70	70.0	75.0	70.0	70.025	70.125	75.000	75.030	69.926	70.000
ZSM-7580-50	75.0	80.0	50.0	75.025	75.125	80.000	80.030	74.926	75.000
ZSM-8085-60	80.0	85.0	60.0	80.025	80.125	85.000	85.030	79.926	80.000
ZSM-8085-80	80.0	85.0	80.0			85.000	85.030	79.926	80.000
ZSM-8590-60	85.0	90.0	60.0	85.025	85.125	90.000	90.030	84.913	85.000
ZSM-8590-100	85.0	90.0	100.0	85.025	85.125	90.000	90.030	84.913	85.000
ZSM-95100-60	95.0	100.0	60.0	95.025	95.125	100.000	100.030	94.913	95.000

iglide®
Z

iglide® Z - Product Range

Flange bearing - Metric



Order key

Type	Dimensions
Z F M	-04 05-04
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

r = max. 0.5

For tolerance values
please refer to page 347

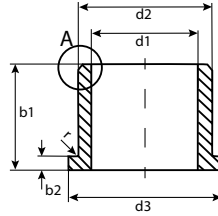
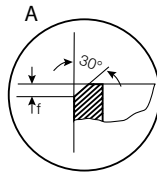
Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
ZFM-0405-04	4.0	5.5	9.5	4.0	0.75	4.010	4.058	5.500	5.512	3.970	4.000
ZFM-0405-06	4.0	5.5	9.5	6.0	0.75			5.500	5.512	3.970	4.000
ZFM-0507-05	5.0	7.0	11.0	5.0	1.00	5.010	5.058	7.000	7.015	4.970	5.000
ZFM-0608-04	6.0	8.0	12.0	4.0	1.0	6.010	6.058	8.000	8.015	5.970	6.000
ZFM-0608-08	6.0	8.0	12.0	8.0	1.0			8.000	8.015	5.970	6.000
ZFM-0810-05	8.0	10.0	15.0	5.5	1.0	8.013	8.071	10.000	10.015	7.964	8.000
ZFM-0810-07	8.0	10.0	15.0	7.5	1.0			10.000	10.015	7.964	8.000
ZFM-0810-09	8.0	10.0	15.0	9.5	1.0			10.000	10.015	7.964	8.000
ZFM-081016-12	8.0	10.0	16.0	12.0	1.0			10.000	10.015	7.964	8.000
ZFM-091117-20	9.0	11.0	17.0	20.0	0.5	9.013	9.071	11.000	11.015	9.964	9.000
ZFM-1012-05	10.0	12.0	18.0	5.0	1.0	10.013	10.071	12.000	12.018	9.964	10.000
ZFM-1012-055	10.0	12.0	18.0	5.5	1.0			12.000	12.018	9.964	10.000
ZFM-1012-07	10.0	12.0	18.0	7.0	1.0			12.000	12.018	9.964	10.000
ZFM-1012-09	10.0	12.0	18.0	9.0	1.0			12.000	12.018	9.964	10.000
ZFM-1012-12	10.0	12.0	18.0	12.0	1.0			12.000	12.018	9.964	10.000
ZFM-1012-15	10.0	12.0	18.0	15.0	1.0			12.000	12.018	9.964	10.000
ZFM-1012-17	10.0	12.0	18.0	17.0	1.0			12.000	12.018	9.964	10.000
ZFM-101315-05	10.0	13.0	15.0	5.5	1.5	10.013	10.071	13.000	13.018	9.964	10.000
ZFM-1214-07	12.0	14.0	20.0	7.0	1.0	12.016	12.086	14.000	14.018	11.957	12.000
ZFM-1214-09	12.0	14.0	20.0	9.0	1.0			14.000	14.018	11.957	12.000
ZFM-1214-10	12.0	14.0	20.0	10.0	1.0			14.000	14.018	11.957	12.000
ZFM-1214-12	12.0	14.0	20.0	12.0	1.0			14.000	14.018	11.957	12.000
ZFM-1214-15	12.0	14.0	20.0	15.0	1.0			14.000	14.018	11.957	12.000
ZFM-1214-17	12.0	14.0	20.0	17.0	1.0			14.000	14.018	11.957	12.000
ZFM-1214-20	12.0	14.0	20.0	20.0	1.0			14.000	14.018	11.957	12.000
ZFM-1416-12	14.0	16.0	22.0	12.0	1.0	14.016	14.086	16.000	16.018	13.957	14.000
ZFM-1416-16	14.0	16.0	22.0	16.0	1.0			16.000	16.018	13.957	14.000
ZFM-1416-17	14.0	16.0	22.0	17.0	1.0			16.000	16.018	13.957	14.000
ZFM-1517-09	15.0	17.0	23.0	9.0	1.0	15.016	15.086	17.000	17.018	14.957	15.000
ZFM-1517-11	15.0	17.0	23.0	11.0	1.0			17.000	17.018	14.957	15.000
ZFM-1517-12	15.0	17.0	23.0	12.0	1.0			17.000	17.018	14.957	15.000
ZFM-1517-15	15.0	17.0	23.0	15.0	1.0			17.000	17.018	14.957	15.000
ZFM-1517-17	15.0	17.0	23.0	17.0	1.0			17.000	17.018	14.957	15.000
ZFM-151723-23	15.0	17.0	23.0	23.0	1.0			17.000	17.018	14.957	15.000
ZFM-1618-12	16.0	18.0	24.0	12.0	1.0	16.016	16.086	18.000	18.018	15.957	16.000
ZFM-1618-17	16.0	18.0	24.0	17.0	1.0			18.000	18.018	15.957	16.000
ZFM-1820-04	18.0	20.0	26.0	4.0	1.0	18.016	18.086	20.000	20.021	17.957	18.000

iglide® Z - Product Range

Flange bearing - Metric

 iglide®
Z

Order key

Type	Dimensions
Z F M	-04 05-04

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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 $r = \max. 0.5$

 For tolerance values
 please refer to page 347

Dimensions according to ISO 3547-1 and special dimensions

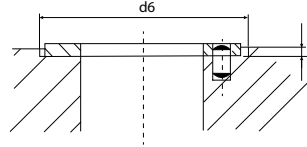
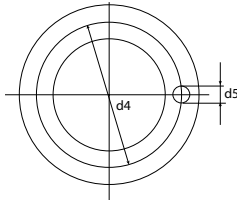
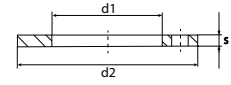
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3 d13	b1 h13	b2 -0.14	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
ZFM-1820-12	18.0	20.0	26.0	12.0	1.0	18.016	18.086	20.000	20.021	17.957	18.000
ZFM-1820-17	18.0	20.0	26.0	17.0	1.0			20.000	20.021	17.957	18.000
ZFM-1820-22	18.0	20.0	26.0	22.0	1.0			20.000	20.021	17.957	18.000
ZFM-1822-22	18.0	22.0	26.0	22.0	1.0	18.016	18.086	22.000	22.021	17.957	18.000
ZFM-2022-21	20.0	22.0	30.0	21.0	1.5	20.020	20.104	22.000	22.040	19.948	20.000
ZFM-2023-11	20.0	23.0	30.0	11.5	1.5	20.020	20.104	23.000	23.021	19.948	20.000
ZFM-2023-155	20.0	23.0	30.0	15.5	1.5			23.000	23.021	19.948	20.000
ZFM-2023-16	20.0	23.0	30.0	16.0	1.5			23.000	23.021	19.948	20.000
ZFM-2023-21	20.0	23.0	30.0	21.5	1.5			23.000	23.021	19.948	20.000
ZFM-2023-31	20.0	23.0	30.0	31.5	1.5			23.000	23.021	19.948	20.000
ZFM-2528-11	25.0	28.0	35.0	11.0	1.5	25.020	25.104	28.000	28.021	24.948	25.000
ZFM-2528-16	25.0	28.0	35.0	16.5	1.5			28.000	28.021	24.948	25.000
ZFM-2528-21	25.0	28.0	35.0	21.5	1.5			28.000	28.021	24.948	25.000
ZFM-2528-31	25.0	28.0	35.0	31.5	1.5			28.000	28.021	24.948	25.000
ZFM-3034-13	30.0	34.0	42.0	13.0	2.0	30.020	30.104	34.000	34.025	29.948	30.000
ZFM-3034-16	30.0	34.0	42.0	16.0	2.0			34.000	34.025	29.948	30.000
ZFM-3034-20	30.0	34.0	42.0	20.0	2.0			34.000	34.025	29.948	30.000
ZFM-3034-26	30.0	34.0	42.0	26.0	2.0			34.000	34.025	29.948	30.000
ZFM-3034-37	30.0	34.0	42.0	37.0	2.0			34.000	34.025	29.948	30.000
ZFM-3539-14	35.0	39.0	47.0	14.0	2.0	35.025	35.125	39.000	39.025	34.938	35.000
ZFM-3539-16	35.0	39.0	47.0	16.0	2.0			39.000	39.025	34.938	35.000
ZFM-3539-26	35.0	39.0	47.0	26.0	2.0			39.000	39.025	34.938	35.000
ZFM-4044-20	40.0	44.0	52.0	20.0	2.0	40.025	40.125	44.000	44.025	39.938	40.000
ZFM-4044-30	40.0	44.0	52.0	30.0	2.0			44.000	44.025	39.938	40.000
ZFM-4044-40	40.0	44.0	52.0	40.0	2.0			44.000	44.025	39.938	40.000
ZFM-4550-20	45.0	50.0	58.0	20.0	2.0	45.025	45.125	50.000	50.025	44.938	45.000
ZFM-4550-50	45.0	50.0	58.0	50.0	2.0			50.000	50.025	44.938	45.000
ZFM-5055-20	50.0	55.0	63.0	20.0	2.0	50.025	50.125	55.000	55.030	49.938	50.000
ZFM-5055-50	50.0	55.0	63.0	50.0	2.0			55.000	55.030	49.938	50.000
ZFM-6065-50	60.0	65.0	73.0	50.0	2.5	60.030	60.150	65.000	65.030	59.926	60.000
ZFM-7075-50	70.0	75.0	83.0	50.0	2.5	70.030	70.150	75.000	75.030	69.926	70.000
ZFM-7580-50	75.0	80.0	88.0	50.0	2.5	75.030	75.150	80.000	80.030	74.926	75.000

iglide®
Z

iglide® Z - Product Range

Thrust washer - Metric



Order key

Type

Dimensions

Z T M -26 44-015

iglide® material

Form T (washer)

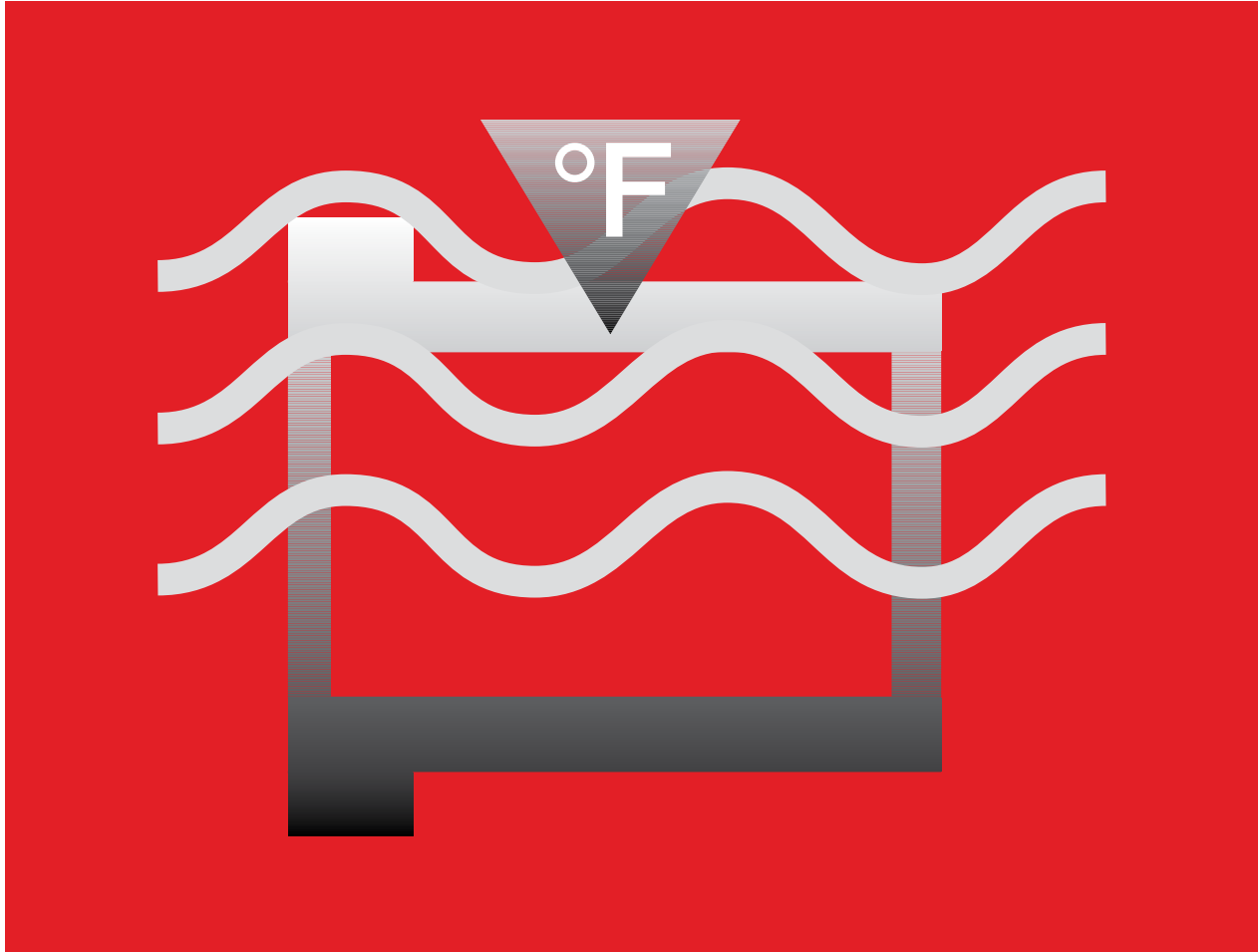
Metric

Inner-Ø d1 (mm)

Outer-Ø d2 (mm)

Thickness s (mm)

Part number	d1 +0.25	d2 -0.25	s -0.05	d4 -0.12 +0.12	d5 +0.375 +0.125	h +0.2 -0.2	d6 +0.12
ZTM-2644-015	26.0	44.0	1.5	35.0	3.0	1.0	44.0
ZTM-3254-015	32.0	54.0	1.5	43.0	4.0	1.0	54.0
ZTM-4874-020	48.0	74.0	2.0	61.0	4.0	1.5	74.0
ZTM-6290-020	62.0	90.0	2.0	76.0	4.0	1.5	90.0



iglide® UW500

- For underwater use at high temperatures
- For fast and constant movements
- High chemical resistance

iglide®
UW500

iglide® UW500 - For hot liquids

For fast and constant movements



For underwater use
at high temperatures



For fast and constant movements

High chemical resistance

iglide® UW500 was developed for underwater applications at temperatures up to 482°F. In addition, the bearings will run in chemicals which would act as a lubricant.



- When bearings need to be used in liquids
- For high speeds
- For high temperatures
- When a high chemical resistance is required



- When a cost-effective underwater bearing is required
 - iglide® UW
- When a cost-effective underwater bearing for infrequent operations is required
 - iglide® H
- When a cost-effective universal bearing is required
 - iglide® G300



Available on request

Detailed information about delivery time online.



max. +482°F

min. -148°F



Order dependent



Contact igus®

Sizes available upon request



Typical application areas

- Plant engineering
- Pumps
- Chemical industry

iglide® UW500 - Technical Data

 iglide®
 UW500

Material Properties Table

General Properties	Unit	iglide® UW500	Testing Method
Density	g/cm ³	1.49	
Color		black	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.1	DIN 53495
Max. moisture absorption	% weight	0.5	
Coefficient of friction, dynamic against steel	μ	0.20 - 0.36	
pv value, max. (dry)	psi x fpm	10,000	

Mechanical Properties	Unit	iglide® UW500	Testing Method
Modulus of elasticity	psi	2,320,600	DIN 53457
Tensile strength at 68°F	psi	37,710	DIN 53452
Compressive strength	psi	20,305	
Permissible static surface pressure (68°F)	psi	20,305	
Shore D-hardness		86	DIN 53505

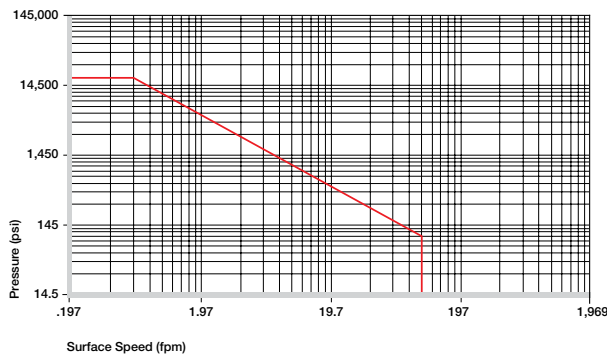
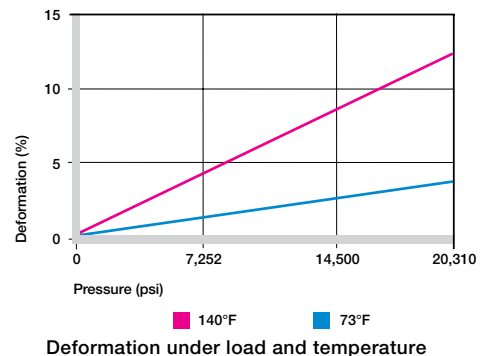
Physical and Thermal Properties	Unit	iglide® UW500	Testing Method
Max. long-term application temperature	°F	482	
Max. application temperature, short-term	°F	572	
Min. application temperature	°F	-148	
Thermal conductivity	W/m x K	0.60	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	4	DIN 53752

Electrical Properties	Unit	iglide® UW500	Testing Method
Specific volume resistance	Ωcm	< 10 ⁹	DIN IEC 93
Surface resistance	Ω	< 10 ⁹	DIN 53482

Compressive Strength

With increasing temperatures, the compressive strength of iglide® UW500 plain bearings decreases. The graph shows this inverse relationship. The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this.

► Compressive strength, Page 63



Permissible pv values for iglide® UW500 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® UW500 bearings can be used both dry running and in media like water in a wide range of conditions. Through a hydrodynamic lubrication, an underwater high surface speed above 295 fpm can be achieved.

- Surface speed, Page 64
- pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	157	295
Oscillating	118	216
Linear	393	590

Maximum surface speeds

iglide® UW500 - Technical Data

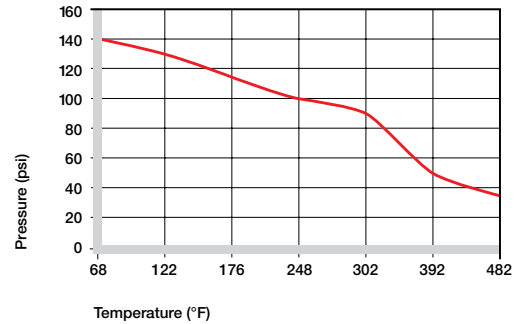
Temperatures

iglide® UW500 can be used in applications with permanent temperatures of +482°F. At temperatures over +302°F an additional axial securing is required.

► Application temperatures, Page 67

iglide® UW500	Application Temperature
Minimum	-148°F
Max. long-term	+482°F
Max. short-term	+572°F
Additional axial securing	+302°F

Temperature limits for iglide® UW500



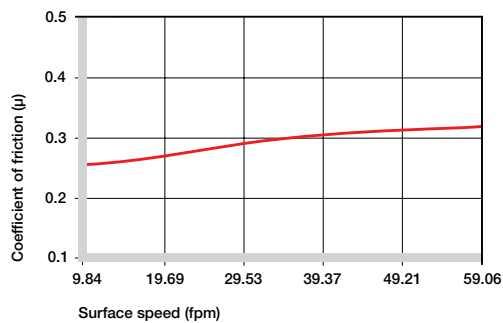
Recommended maximum permissible static surface pressure of iglide® UW500 as a result of the temperature

Friction and Wear

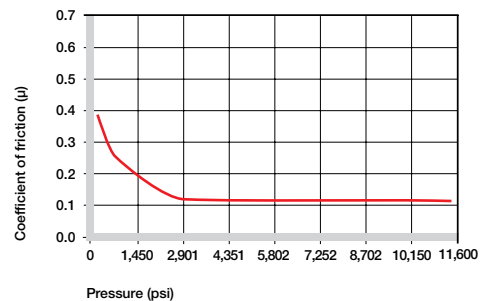
The graphs show the coefficient of friction of iglide® UW500 bearings as function of speed and pressure. Friction and wear also depend to a high degree on the shaft surface. Ideal are smoothed surfaces with an average surface finish of Ra of 0.1 to 0.4.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® UW500 as a function of the running speed; p = 109 psi



Coefficients of friction of iglide® UW500 as a function of the load, v = 1.96 fpm

iglide® UW500	Coefficient of Friction
Dry	0.20 - 0.36
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® UW500 against steel
(Shaft finish = 40 rms, 50 HRC)

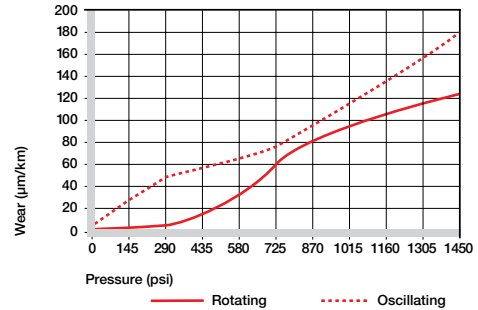
iglide® UW500 - Technical Data

iglide®
UW500

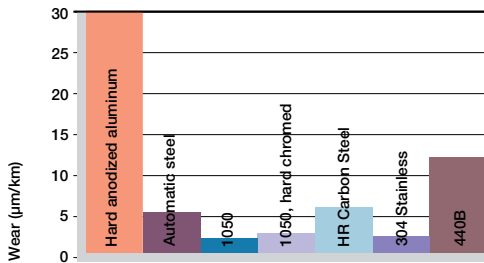
Shaft Materials

The graphs display a summary of the results of tests with different shaft materials conducted with bearings made from iglide® UW500.

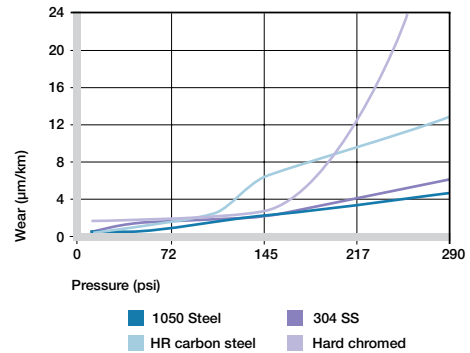
► Shaft Materials, Page 71



Wear for oscillating and rotating applications with 1050 hard chromed and ground steel as a function of the pressure



Wear, rotating application with different shaft materials, p = 145 psi, v = 59 fpm

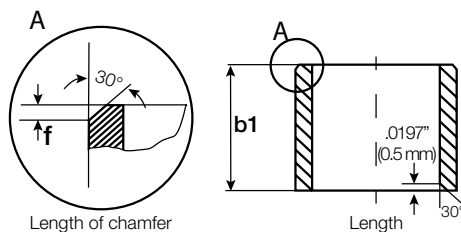


Wear with different shaft materials in rotational operation, as a function of the pressure

Installation Tolerances

iglide® UW500 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 / -0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 / -0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 / -0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 / -0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 / -0.0154	
1.9685 to 3.1496	-0.0000 / -0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 / -140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 / -180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 / -220	f = 0.8 → d ₁ > 12 - 30 mm
> 10 to 18	-0 / -270	f = 1.2 → d ₁ > 30 mm
> 18 to 30	-0 / -330	
> 30 to 50	-0 / -390	
> 50 to 80	-0 / -460	

Chemical Resistance

iglide® UW500 plain bearings have almost universal chemical resistance. They are affected only by concentrated nitric acid and sulfuric acid.

The moisture absorption of iglide® UW500 plain bearings in ambient conditions is below 0.1 % by weight. The maximum moisture absorption is 0.5 % by weight. iglide® UW500 plain bearings can be used for underwater applications.

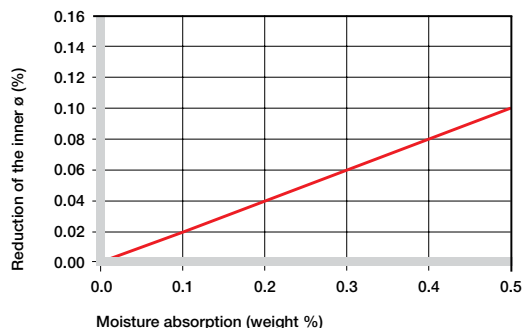
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	+
Strong acids	+
Weak alkaline	+
Strong alkaline	+

+ resistant, 0 conditionally resistant, – not resistant

Chemical resistance of iglide® UW500

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® UW500 plain bearings

Radiation Resistance

Plain bearings of iglide® UW500 are resistant up to a radiation intensity of $1 \cdot 10^5$ Gy. They resist to hard gamma radiation (1,000 Mrad) and alpha or beta radiation (10,000 Mrad).

UV-Resistance

iglide® UW500 bearings are permanently resistant to UV radiation.

Vacuum

Also in vacuum atmosphere, iglide® UW500 bearings can be used almost without restrictions. Outgassing only takes place to a minor degree.

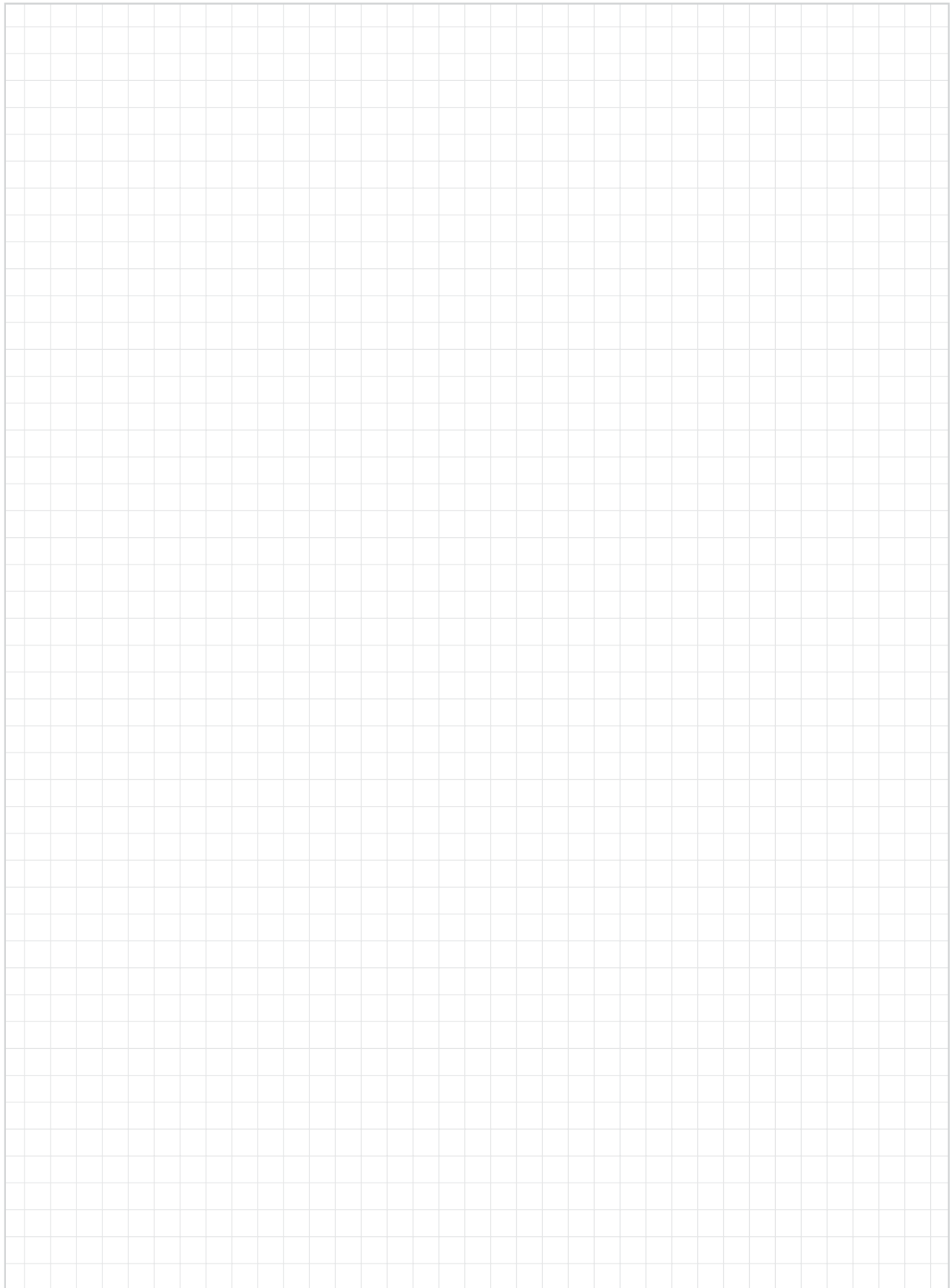
Electrical Properties

iglide® UW500 plain bearings are electrically conductive.

iglide® UW500	
Specific volume resistance	< $10^9 \Omega\text{cm}$
Surface resistance	< $10^9 \Omega$

Electrical properties of iglide® UW500

Notes



iglide® Specialists - Advantages



Universal –
iglide® H
► Page 369



Long life operation –
iglide® H1
► Page 377



Underwater –
iglide® H370
► Page 389



Up to 482°F, wear-resistant –
iglide® C500
► Page 403




Low-cost –
iglide® H2
► Page 411


High media resistance

The “iglide® H family” of bearing materials is characterized by having excellent resistance against chemicals and suitability for a wide range of applications in wet areas. iglide® H370 is the specialist for underwater applications, iglide® H2 is the media-resistant, low-cost material solution for high volume production, and iglide® H1, the endurance runner of this group, with a particularly long service life.

- Self-lubricating and maintenance-free
- Lightweight
- Good price/performance ratio
- Predictable service life


 Online product finder
► www.igus.com/iglide-finder

 max. +482°F
min. -148°F

 5 materials



 Ø 1/8 to 1-1/4 inches
more dimensions on request

 Ø 2 to 70 mm
more dimensions on request

iglide® Specialists - Application Examples

High media resistance



Enormous cost savings with high service life, as well as corrosion resistance make iglide® bearings perfect for this application.



In this form, fill and seal machine, various iglide® self-lubricating bearings are utilized.



Plastic bearings installed into the boring bar dampen vibrations and reduce clearance.



Many iglide® plain bearings are used in this gripper, making it possible to avoid damaging product thanks to smooth movement.



This bottle-filling system for a variety of liquid viscosities works quickly and precisely, thanks to numerous igus® products.



Corrosion resistant iglide® bearings used in this meat roller are resistant to the aggressive cleaning agents used.

iglide® Bearings - Selection Guide - Main Properties

High media resistance



Standard
catalog
range



Bar
stock



speedigus®
material



Long life
in dry
operation



For high
loads



Dirt
resistant



Low
coefficient
of friction



Chemical
resistant

	Standard catalog range	Bar stock	speedigus® material	Long life in dry operation	For high loads	Dirt resistant	Low coefficient of friction	Chemical resistant
iglide® H	●	●	●					●
iglide® H1	●	●		●	●		●	●
iglide® H370	●						●	●
iglide® C500	●			●	●			●
iglide® H2			●					●



Low water
absorption



For under
water use



Edge
pressure



Vibrations
dampening



Food
suitable



Temperatures
up to
+194°F



Temperatures
up to
+302°F

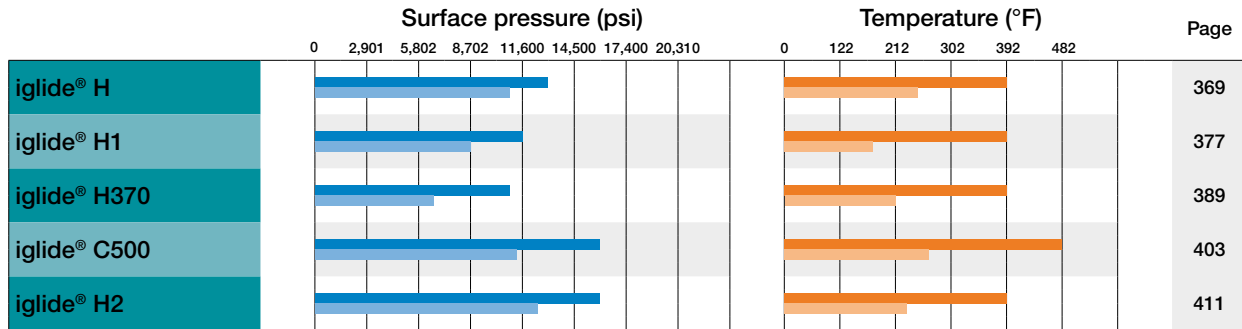




Economic



	Low water absorption	For under water use	Edge pressure	Vibrations dampening	Food suitable	Temperatures up to +194°F	Temperatures up to +302°F	Economic
iglide® H	●	●				●	●	
iglide® H1	●	●				●	●	
iglide® H370	●	●				●	●	
iglide® C500	●	●	●			●	●	
iglide® H2	●	●				●	●	

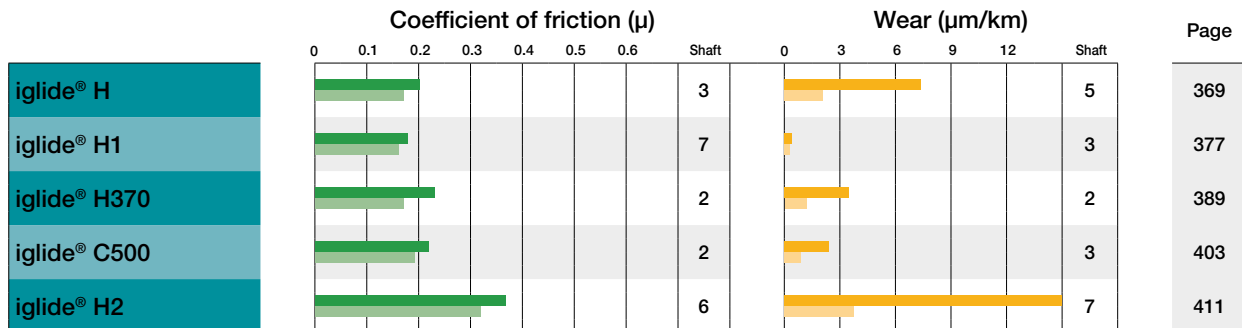
iglide® Bearings - Selection Guide - Main Properties



High media resistance





Maximum permissible surface pressure of iglide® bearings at
 +68°F
 +176°F

Important temperature limits of iglide® bearings
 Maximum permissible application temperature, continuous
 Temperature where bearings need to be secured against radial or axial movement in the housing



Coefficients of friction of iglide® bearings against steel rotating, p = 145 psi v = 59 fpm
 Average of all the seven sliding combinations tested
 Coefficient of friction of best combination

Wear of iglide® bearings against steel rotating, p = 145 psi
 Average of all the seven sliding combinations tested
 Wear of best combination



Shaft material:

1 = 1050, case hardened	4 = Free-cutting steel	7 = 440B Stainless
2 = 1050, case hardened steel, chromed	5 = Machinery Steel	
3 = Hard anodized aluminum	6 = 304 Stainless	



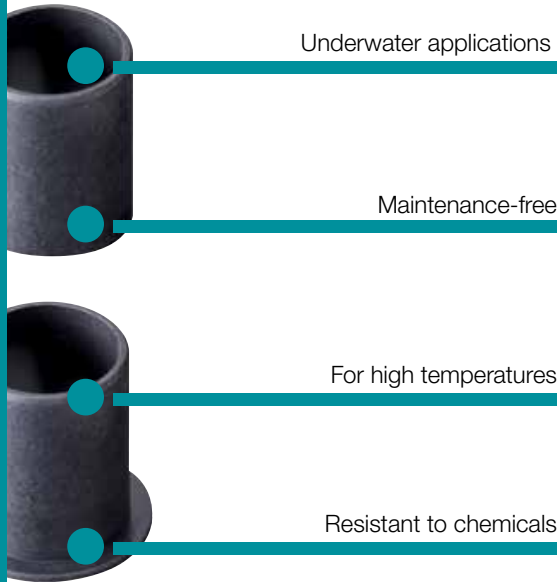
iglide® H

- Can be used underwater
- For high temperatures
- Resistant to chemicals
- High load capabilities

iglide®
H

iglide® H - Universal

High temperature and chemical resistance



Suitable for temperatures up to 392°F. Very low coefficients of friction when used with hardened shafts.



- Suitable for underwater applications
- When high temperature resistance is necessary
- For high mechanical loading
- For applications in contact with chemicals



- When extremely high wear resistance underwater is needed
 - iglide® H370
- When universal resistance to chemicals is needed
 - iglide® T500
- For the maximum pressure at higher temperatures
 - iglide® T500
 - iglide® Z



Available from stock

Detailed information about delivery time online.



max. +392°F
min. -40°F



Price breaks online

No minimum order.



Ø 3 to 70 mm
more dimensions on request



Typical application areas

- Offshore
- Marine engineering
- Beverage technology
- Medical
- Mechatronics

iglide® H - Technical Data

 iglide®
H

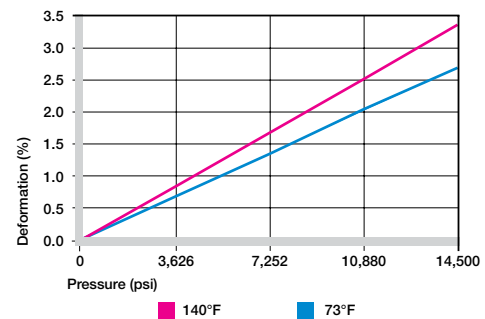
Material Properties Table

General Properties	Unit	iglide® H	Testing Method
Density	g/cm ³	1.71	
Color		gray	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.1	DIN 53495
Max. moisture absorption	% weight	0.3	
Coefficient of friction, dynamic against steel	μ	0.07 - 0.20	
pv value, max. (dry)	psi x fpm	39,000	
Mechanical Properties			
Modulus of elasticity	psi	1,813,000	DIN 53457
Tensile strength at 68°F	psi	25,380	DIN 53452
Compressive strength	psi	11,750	
Permissible static surface pressure (68°F)	psi	13,050	
Shore D-hardness		87	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	392	
Max. application temperature, short-term	°F	464	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.60	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	4	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	< 10 ⁵	DIN IEC 93
Surface resistance	Ω	< 10 ²	DIN 53482

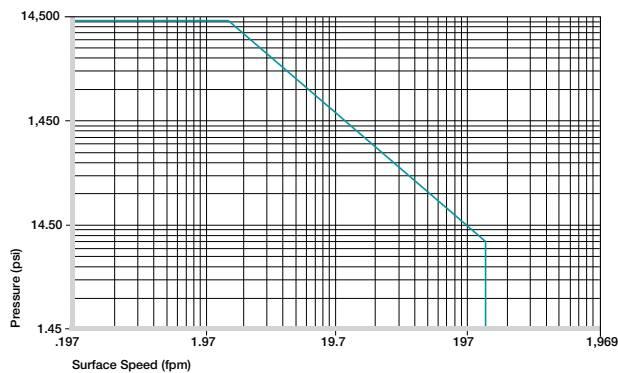
Compressive Strength

The graph shows the elastic deformation of iglide® H for radial loads. At the recommended surface pressure of 13,050 psi, the deformation is approximately 2.5% at room temperature.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv value for iglide® H running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® H is suitable for continuous running speeds of 196 fpm (rotating) to 590 fpm (linear). Linear movements allow higher running speeds since a larger area of the shaft contributes to cooling.

- Surface speed, Page 64
- pv value, Page 65

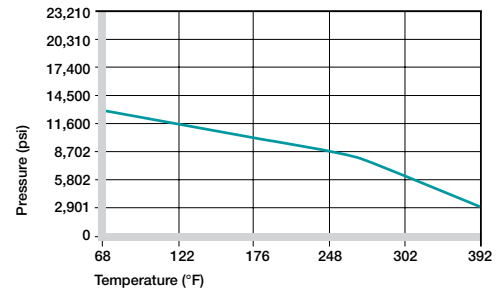
	Continuous fpm	Short Term fpm
Rotating	196	295
Oscillating	137	216
Linear	590	787

Maximum surface speeds

Temperatures

iglide® H is an extremely temperature-resistant material. With a maximum permissible short-term temperature of 464°F, iglide® H plain bearings may be used in applications with high heat at low loads. With increasing temperatures, the compressive strength of iglide® H plain bearings decreases. The graph to the right shows this relationship. The ambient temperatures prevalent in the bearing system also have an effect on the bearing wear.

► Application temperatures, Page 67



Recommended permissible maximum static surface pressure of iglide® H as a result of the temperature

iglide® H	Application Temperature
Minimum	- 40°F
Max. long-term	+392°F
Max. short-term	+464°F
Additional axial securing	+248°F

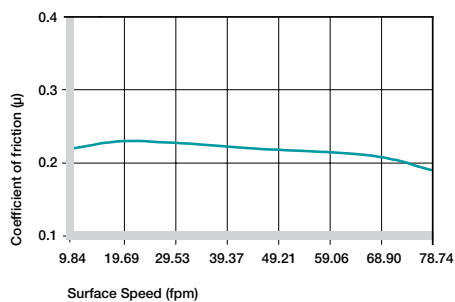
Temperature limits for iglide® H

Friction and Wear

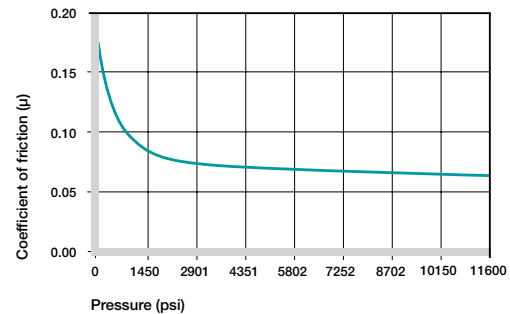
Both the wear rate and the coefficient of friction values change depending on the pressure. Interestingly, the coefficient of friction μ lowers slightly with the increase of surface speed at constant load. See charts below.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction for iglide® H as a result of the surface speed; $p = 108$ psi



Coefficients of friction for iglide® H as a result of the load, $v = 1.97$ fpm

iglide® H	Coefficient of Friction
Dry	0.07 - 0.20
Grease	0.09
Oil	0.04
Water	0.04

Coefficients of friction for iglide® H against steel (Shaft finish = 40 rms, 50 HRC)

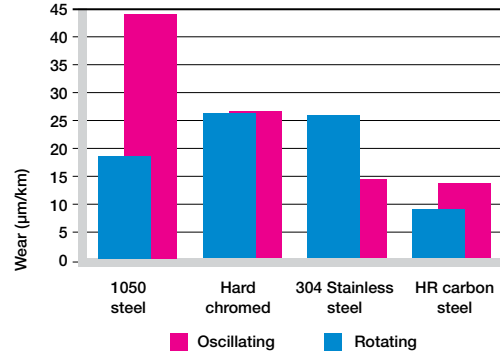
iglide® H - Technical Data

iglide®
H

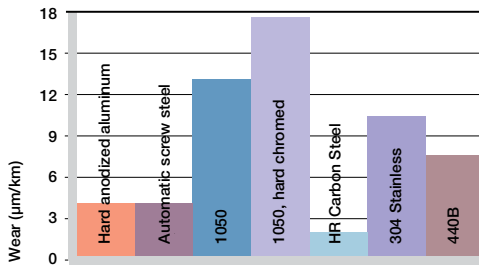
Shaft Materials

The graphs show results of testing different shaft materials with plain bearings made of iglide® H. The results clearly show that in rotating and oscillating applications the correct shaft selection is critical. For rotating applications, shafts made of 1050 hardened, ground steel and HR Carbon steel show the best wear values, the 304 stainless steel shaft is best suited for oscillating movements. Also, hard chromed shafts with iglide® H bearings are only recommended for low loads. If the shaft material you plan to use is not contained in this list, please contact us.

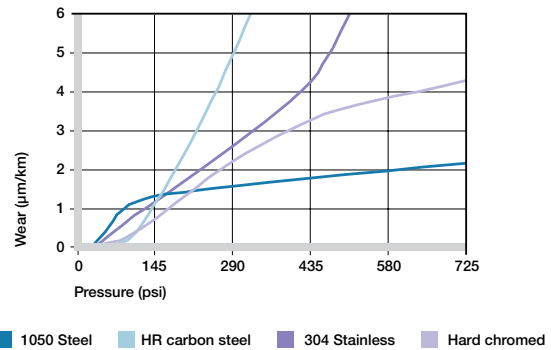
➤ Shaft Materials, Page 71



Wear for oscillating and rotating applications with different shaft materials p = 290 psi



Wear of iglide® H, rotating application with different shaft materials, p=108 psi, v=98 fpm

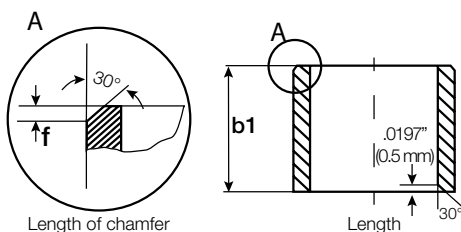


Wear of iglide® H with different shaft materials in rotating applications

Installation Tolerances

iglide® H plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

➤ Tolerance table, Page 75
➤ Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
> 10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
> 18 to 30	-0 /-330	
> 30 to 50	-0 /-390	
> 50 to 80	-0 /-460	

Chemical Resistance

iglide® H plain bearings have a good chemical resistance. Even aggressive chemicals can act as lubricants. Plain bearings made of iglide® H are not resistant to hot, oxidizing acids.

The moisture absorption of iglide H plain bearings is below 0.1% in standard atmosphere. The saturation limit in water is 0.3%. iglide® H does not swell and therefore is very well suited for use in wet surroundings

► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	+ to 0
Strong acids	+ to –
Weak alkaline	+
Strong alkaline	+

+ resistant, 0 conditionally resistant, – not resistant

Chemical resistance of iglide® H

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364

Radiation Resistance

iglide® H plain bearings are resistant to radiation up to an intensity of 2×10^2 Gy. They also withstand neutron and gamma particle radiation.

UV Resistance

iglide® H plain bearings are only conditionally resistant against UV radiation. Under the effects of weathering, the surface of iglide® H becomes rougher, and the compressive strength of the material decreases.

Vacuum

For use in a vacuum environment, it must be taken into account that a small amount of moisture is released as vapor.

Electrical Properties

iglide® H plain bearings are electrically conducting.

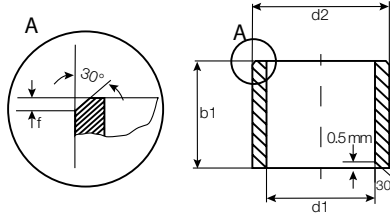
iglide® H	
Specific volume resistance	< $10^5 \Omega\text{cm}$
Surface resistance	< $10^2 \Omega$

Electrical properties of iglide® H

iglide® H - Product Range

Sleeve bearing - Metric

iglide®
H



Order key

Type	Dimensions
H S M	-03 04-05
iglide® material	Form S (sleeve)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

For tolerance values
please refer to page 373

Dimensions according to ISO 3547-1 and special dimensions

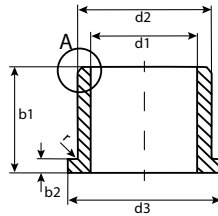
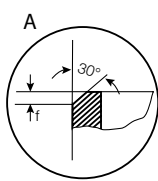
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
HSM-0304-03	3.0	4.5	3.0	3.006	3.046	4.500	4.512	2.975	3.000
HSM-0405-04	4.0	5.5	4.0	4.010	4.058	5.500	5.512	3.970	4.000
HSM-0507-05	5.0	7.0	5.0	5.010	5.058	7.000	7.015	4.970	5.000
HSM-0608-03	6.0	8.0	3.0	6.010	6.058	8.000	8.015	5.970	6.000
HSM-0608-06	6.0	8.0	6.0			8.000	8.015	5.970	6.000
HSM-0810-08	8.0	10.0	8.0	8.013	8.071	10.000	10.015	7.964	8.000
HSM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
HSM-1012-06	10.0	12.0	6.0	10.013	10.071	12.000	12.018	9.964	10.000
HSM-1012-10	10.0	12.0	10.0			12.000	12.018	9.964	10.000
HSM-1214-10	12.0	14.0	10.0	12.016	12.086	14.000	14.018	11.957	12.000
HSM-1214-12	12.0	14.0	12.0			14.000	14.018	11.957	12.000
HSM-1214-15	12.0	14.0	15.0			14.000	14.018	11.957	12.000
HSM-1214-20	12.0	14.0	20.0			14.000	14.018	11.957	12.000
HSM-1416-20	14.0	16.0	20.0	14.016	14.086	16.000	16.018	13.957	14.000
HSM-1517-15	15.0	17.0	15.0	15.016	15.086	17.000	17.018	14.957	15.000
HSM-1618-15	16.0	18.0	15.0	16.016	16.086	18.000	18.018	15.957	16.000
HSM-1618-20	16.0	18.0	20.0			18.000	18.018	15.957	16.000
HSM-1618-25	16.0	18.0	25.0			18.000	18.018	15.957	16.000
HSM-1820-15	18.0	20.0	15.0	18.016	18.086	20.000	20.021	17.957	18.000
HSM-1820-25	18.0	20.0	25.0			20.000	20.021	17.957	18.000
HSM-2023-20	20.0	23.0	20.0	20.020	20.104	23.000	23.021	19.948	20.000
HSM-2023-30	20.0	23.0	30.0			23.000	23.021	19.948	20.000
HSM-2225-20	22.0	25.0	20.0	22.020	22.104	25.000	25.021	21.948	22.000
HSM-2528-15	25.0	28.0	15.0	25.020	25.104	28.000	28.021	24.948	25.000
HSM-2528-20	25.0	28.0	20.0			28.000	28.021	24.948	25.000
HSM-3034-20	30.0	34.0	20.0	30.020	30.104	34.000	34.025	29.948	30.000
HSM-3034-30	30.0	34.0	30.0			34.000	34.025	29.948	30.000
HSM-3034-40	30.0	34.0	40.0			34.000	34.025	29.948	30.000
HSM-3236-30	32.0	36.0	30.0	32.025	32.125	36.000	36.025	31.938	32.000
HSM-3539-40	35.0	39.0	40.0	35.025	35.125	39.000	39.025	34.938	35.000
HSM-4044-20	40.0	44.0	20.0	40.025	40.125	44.000	44.025	39.938	40.000
HSM-4044-50	40.0	44.0	50.0			44.000	44.025	39.938	40.000
HSM-4550-30	45.0	50.0	30.0	45.025	45.125	50.000	50.025	44.938	45.000
HSM-5055-40	50.0	55.0	40.0	50.025	50.125	55.000	55.030	49.938	50.000
HSM-5560-26	55.0	60.0	26.0	55.030	55.150	60.000	60.030	54.926	55.000
HSM-6065-60	60.0	65.0	60.0	60.030	60.150	65.000	65.030	59.926	60.000
HSM-7075-50	70.0	75.0	50.0	70.030	70.150	75.000	75.030	69.926	70.000

iglide®
H

iglide® H - Product Range

Flange bearing - Metric



Order key

Type	Dimensions
H	F M -03 04 -05
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

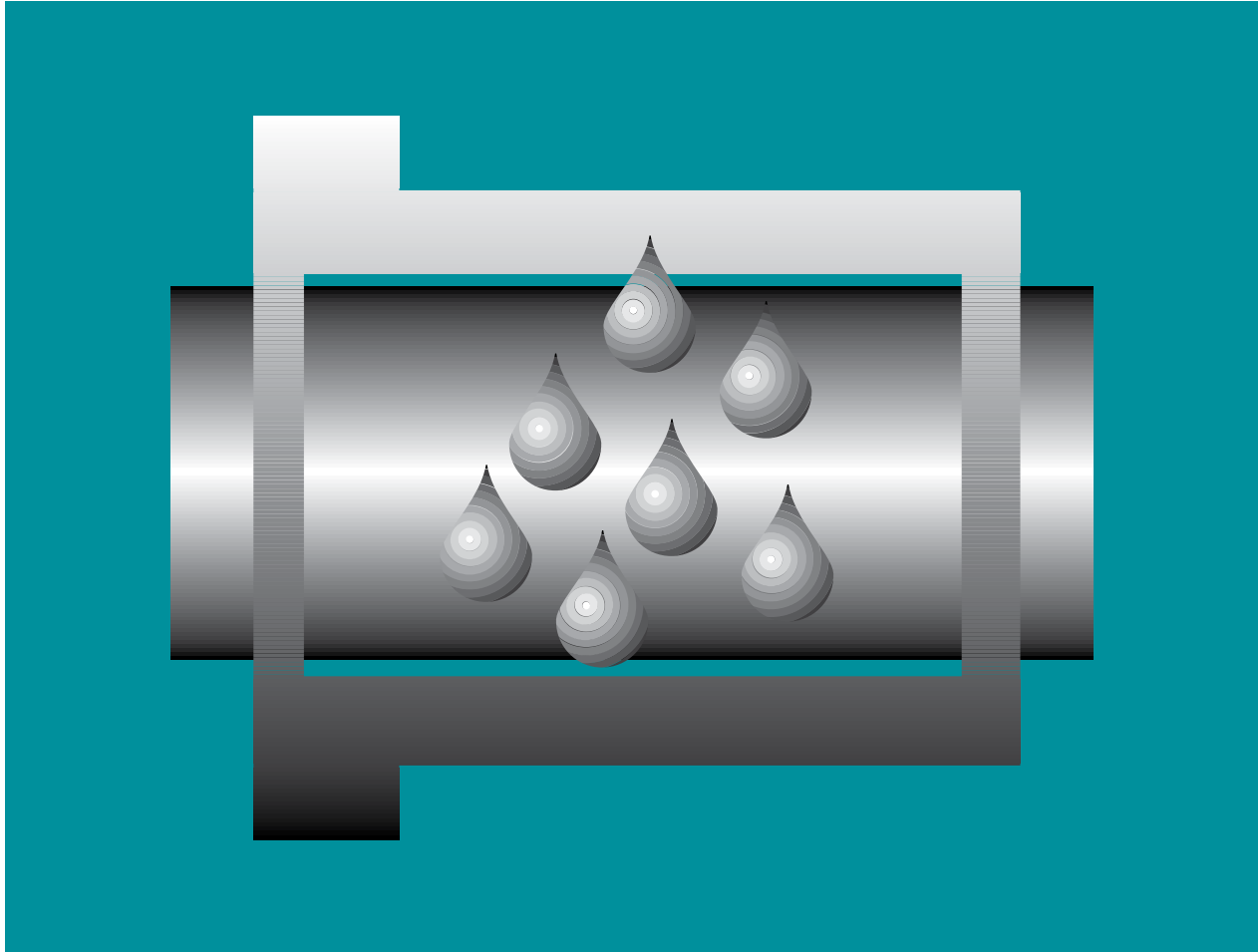
r = max. 0.5

For tolerance values
please refer to page 373

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
HFM-0405-04	4.0	5.5	9.5	4.0	0.75	4.010	4.058	5.500	5.512	3.970	4.000
HFM-0507-05	5.0	7.0	11.0	5.0	1.0	5.010	5.058	7.000	7.015	4.970	5.000
HFM-0507-08	5.0	7.0	11.0	8.0	1.0			7.000	7.015	4.970	5.000
HFM-0608-04	6.0	8.0	12.0	4.0	1.0	6.010	6.058	8.000	8.015	5.970	6.000
HFM-0608-06	6.0	8.0	12.0	6.0	1.0			8.000	8.015	5.970	6.000
HFM-0608-10	6.0	8.0	12.0	10.0	1.0			8.000	8.015	5.970	6.000
HFM-0810-07	8.0	10.0	15.0	7.0	1.0	8.013	8.071	10.000	10.018	7.964	8.000
HFM-0810-10	8.0	10.0	15.0	10.0	1.0			10.000	10.018	7.964	8.000
HFM-0810-15	8.0	10.0	15.0	15.0	1.0			10.000	10.018	7.964	8.000
HFM-1012-04	10.0	12.0	18.0	4.0	1.0	10.013	10.071	12.000	12.018	9.964	10.000
HFM-1012-09	10.0	12.0	18.0	9.0	1.0			12.000	12.018	9.964	10.000
HFM-1012-15	10.0	12.0	18.0	15.0	1.0			12.000	12.018	9.964	10.000
HFM-1012-20	10.0	12.0	18.0	20.0	1.0			12.000	12.018	9.964	10.000
HFM-1214-07	12.0	14.0	20.0	7.0	1.0	12.016	12.086	14.000	14.018	11.957	12.000
HFM-1214-10	12.0	14.0	20.0	10.0	1.0			14.000	14.018	11.957	12.000
HFM-1214-15	12.0	14.0	20.0	15.0	1.0			14.000	14.018	11.957	12.000
HFM-1416-12	14.0	16.0	22.0	12.0	1.0	14.016	14.086	16.000	16.018	13.957	14.000
HFM-1517-17	15.0	17.0	23.0	17.0	1.0	15.016	15.086	17.000	17.018	14.957	15.000
HFM-1618-13	16.0	18.0	24.0	13.0	1.0	16.016	16.086	18.000	18.018	15.957	16.000
HFM-1618-17	16.0	18.0	24.0	17.0	1.0			18.000	18.018	15.957	16.000
HFM-1820-17	18.0	20.0	26.0	17.0	1.0	18.016	18.086	20.000	20.021	17.957	18.000
HFM-2023-07	20.0	23.0	30.0	7.0	1.0	20.020	20.104	23.000	23.021	19.948	20.000
HFM-2023-16	20.0	23.0	30.0	16.5	1.5			23.000	23.021	19.948	20.000
HFM-2023-30	20.0	23.0	30.0	30.0	1.5			23.000	23.021	19.948	20.000
HFM-2528-30	25.0	28.0	35.0	30.0	1.5	25.020	25.104	28.000	28.021	24.948	25.000
HFM-2730-20	27.0	30.0	38.0	20.0	1.5	27.020	27.104	30.000	30.021	26.948	27.000
HFM-3034-40	30.0	34.0	42.0	40.0	2.0	30.020	30.104	34.000	34.025	29.948	30.000
HFM-3438-13	34.0	38.0	46.0	13.0	2.0	34.025	34.125	38.000	38.025	33.938	34.000
HFM-3539-26	35.0	39.0	47.0	26.0	2.0	35.025	35.125	39.000	39.025	34.938	35.000
HFM-4044-40	40.0	44.0	52.0	40.0	2.0	40.025	40.125	44.000	44.025	39.938	40.000
HFM-4550-50	45.0	50.0	58.0	50.0	2.0	45.025	45.125	50.000	50.025	44.938	45.000
HFM-5055-50	50.0	55.0	63.0	50.0	2.0	50.025	50.125	55.000	55.030	49.938	50.000
HFM-6065-50	60.0	65.0	73.0	50.0	2.0	60.030	60.150	65.000	65.030	59.926	60.000
HFM-7075-50	70.0	75.0	83.0	50.0	2.0	70.030	70.150	75.000	75.030	69.926	70.000



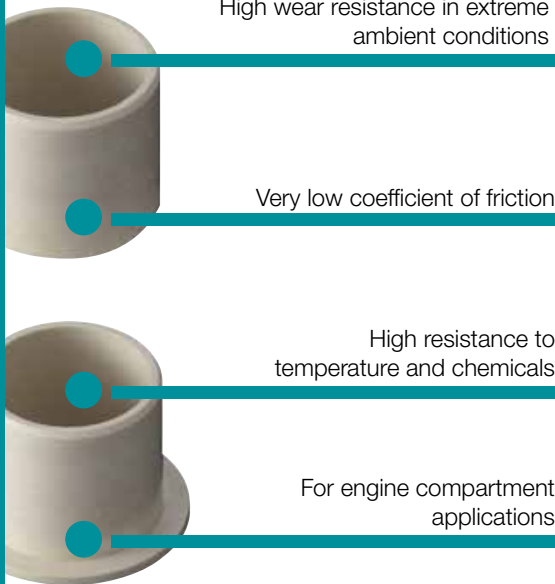
iglide® H1

- Wear resistance in extreme conditions
- High temperature resistance -40°F to +392°F
- High chemical resistance
- Very low coefficient of friction

iglide®
H1

iglide® H1 - Wear resistant

Long life operation in extreme ambient conditions



iglide® H1 is the first choice when long life is required in extreme environmental conditions. Extreme wear resistance is coupled with excellent resistance to temperature and chemicals - not only in the packaging and foodstuff industries or the automotive industry.



- When extreme service life is required under the influence of temperature and humidity
- When low coefficients of friction at high temperature are important
- When regular aggressive cleaning is required (splashes, steam blasting)



- When high surface pressures occur
➤ iglide® Z
- When the best universal chemical resistance is required
➤ iglide® T500
- When a cost-effective high-temperature bearing is needed, not the ideal wear resistance
➤ iglide® H2
- When an FDA-compliant plain bearing with high temperature resistance is required
➤ iglide® A500



Available from stock

Detailed information about delivery time online.



max. +392°F
min. -40°F



Price breaks online

No minimum order.



Ø 3 to 40 mm
more dimensions on request



Typical application areas

- Beverage technology
- Textile technology
- Automation
- Optical industry
- Packaging

iglide® H1 - Technical Data

 iglide®
H1

Material Properties Table

General Properties	Unit	iglide® H1	Testing Method
Density	g/cm ³	1.53	
Color		cream	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.1	DIN 53495
Max. moisture absorption	% weight	0.3	
Coefficient of friction, dynamic against steel	μ	0.06 - 0.20	
pv value, max. (dry)	psi x fpm	22,800	

Mechanical Properties	Unit	iglide® H1	Testing Method
Modulus of elasticity	psi	406,100	DIN 53457
Tensile strength at 68°F	psi	7,977	DIN 53452
Compressive strength	psi	11,310	
Permissible static surface pressure (68°F)	psi	11,600	
Shore D-hardness		77	DIN 53505

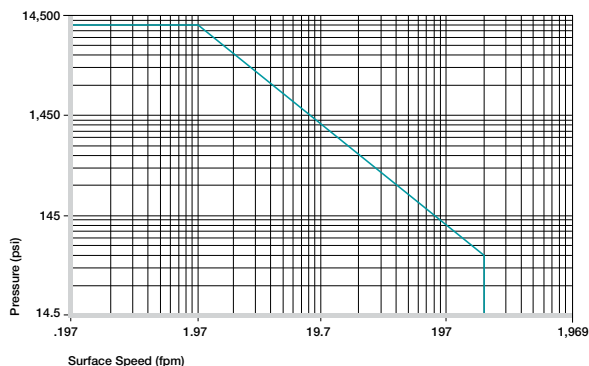
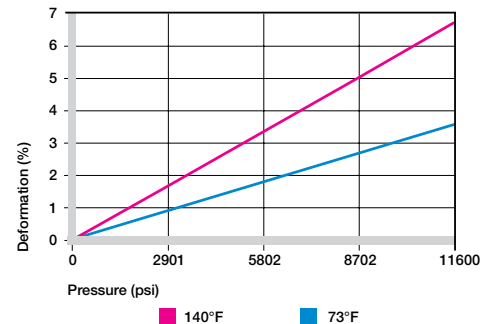
Physical and Thermal Properties	Unit	iglide® H1	Testing Method
Max. long-term application temperature	°F	392	
Max. application temperature, short-term	°F	464	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	6	DIN 53752

Electrical Properties	Unit	iglide® H1	Testing Method
Specific volume resistance	Ωcm	> 10 ¹²	DIN IEC 93
Surface resistance	Ω	> 10 ¹¹	DIN 53482

Compressive Strength

The graph shows the elastic deformation of iglide® H1 for radial loads. Among the iglide® materials, iglide® H1 has the greatest elasticity. This is beneficial in applications with edge loads and is the reason for the higher mechanical loss factor that indicates the vibration dampening capacity of a material.

► Compressive strength, Page 63



Permissible pv value for iglide® H1 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

Due to the excellent coefficients of friction, rotating surface speeds up to 393 fpm are possible with iglide® H1 plain bearings in dry operation. Linear speeds up to 984 fpm can be achieved in continuous applications. The speeds stated in the table are limit values for the lowest bearing loads. With higher loads, the permitted speed drops with the extent of an increase in load due to the limitations given by the pv value.

- Surface speed, Page 64
- pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	393	492
Oscillating	196	295
Linear	984	1378

Maximum surface speeds

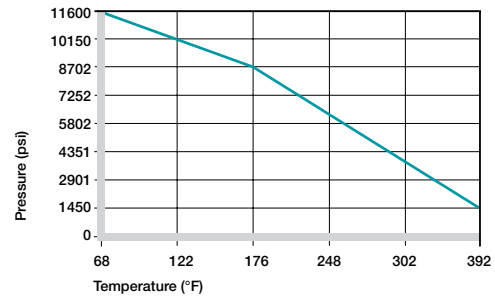
iglide®
H1

iglide® H1 - Technical Data

Temperatures

iglide® H1 is an extremely temperature-resistant material. With a maximum permissible short-term temperature of 464°F, iglide® H1 plain bearings may be used in heat treated applications at low loads. With increasing temperatures, the compressive strength of iglide® H1 plain bearings decreases. The graph to the right shows this relationship. The ambient temperatures prevalent in the bearing system also have an effect on the bearing wear.

► Application temperatures, Page 67



Recommended permissible maximum static surface pressure of iglide® H1 as a result of the temperature

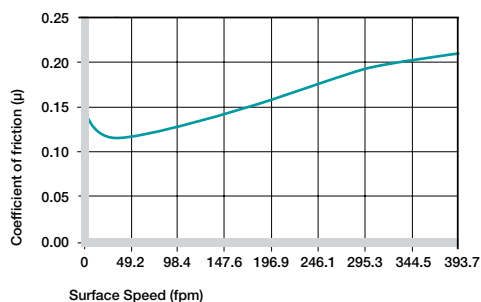
iglide® H1	Application Temperature
Minimum	- 40°F
Max. long-term	+392°F
Max. short-term	+464°F
Additional axial securing	+176°F

Temperature limits for iglide® H1

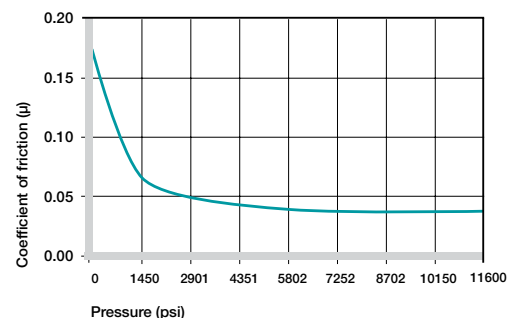
Friction and Wear

The coefficient of friction alters in the same way as the wear resistance with increasing load and speed. For applications with high loads we recommend hardened and smooth surfaces with an average surface finish of 12-16 rms.

- Coefficients of friction and surfaces, Page 68
- Wear resistance, Page 69



Coefficients of friction for iglide® H1 as a result of the surface speed; p = 108 psi



Coefficients of friction for iglide® H1 as a result of the load, v = 1.97 fpm

iglide® H1	Coefficient of Friction
Dry	0.06 - 0.20
Grease	0.09
Oil	0.04
Water	0.04

Coefficients of friction for iglide® H1 against steel (Shaft finish = 40 rms, 50 HRC)

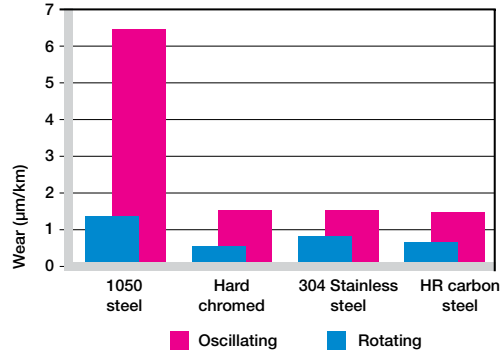
iglide® H1 - Technical Data

iglide®
H1

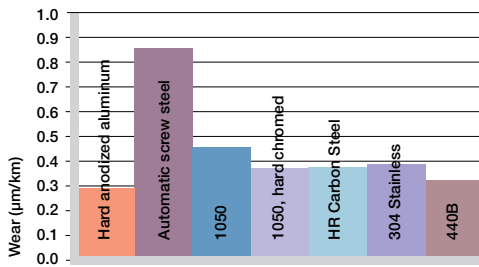
Shaft Materials

The graphs show results of testing different shaft materials with plain bearings made of iglide® H1. iglide® H1 bearings display a distinctly different behavior with different shaft materials in rotating and pivoting applications. In rotating applications, the 440B and 304 stainless shafts are superior to the aluminum HC and 1050 steel shafts especially with high loads. In oscillating applications, the lowest wear rates were measured with aluminum HC and 304 stainless shafts. With most shafts, the rotation wear rates were somewhat lower than the pivoting wear rates. If the shaft material you plan to use is not contained in this list, please contact us.

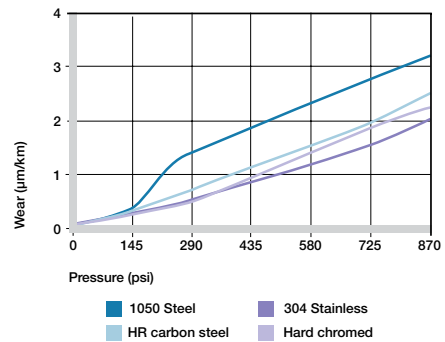
► Shaft Materials, Page 71



Wear for oscillating and rotating applications with different shaft materials p = 290 psi



Wear of iglide® H1, rotating application with different shaft materials, p=108 psi, v=98 fpm

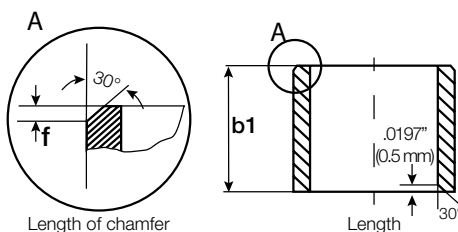


Wear of iglide® H1 with different shaft materials in rotating applications

Installation Tolerances

iglide® H1 plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		
Length (inches)	Tolerance (h13) (inches)	Length of Chamfer (f) Based on d1
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		
Length (mm)	Tolerance (h13) (mm)	Length of Chamfer (f) Based on d1
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
> 10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
> 18 to 30	-0 /-330	
> 30 to 50	-0 /-390	
> 50 to 80	-0 /-460	

Chemical Resistance

iglide® H1 plain bearings have a good chemical resistance and chemicals can even act as lubricants. Plain bearings made of iglide® H are not resistant to hot, oxidizing acids and some other particularly aggressive chemicals.

The moisture absorption of iglide H1 plain bearings is approximately 0.1% in standard atmosphere. The saturation limit in water is 0.3%. Therefore, iglide® H1 is very well suited for use in wet surroundings

► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	+ to 0
Strong acids	+ to -
Weak alkaline	+
Strong alkaline	+ to -

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® H1

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364

Radiation Resistance

Resistant to radiation up to an intensity of $3 \cdot 10^2$ Gy.

UV Resistance

iglide® H1 plain bearings are only conditionally resistant against UV radiation. The surface of iglide® H1 becomes coarser and the wear increases under the influence of atmospheric conditions.

Vacuum

Note that for use in a vacuum environment, water elements, even if only minimal, should be degassed.

Electrical Properties

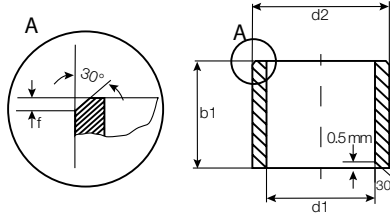
iglide® H1 plain bearings are electrically insulating.

iglide® H1	
Specific volume resistance	> 10^{12} Ωcm
Surface resistance	> 10^{11} Ω

Electrical properties of iglide® H1

iglide® H1 - Product Range

Sleeve bearing - Metric

 iglide®
H1

Order key

Type	Dimensions
H1 S M -03 04 -05	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
 please refer to page 381

Dimensions according to ISO 3547-1 and special dimensions

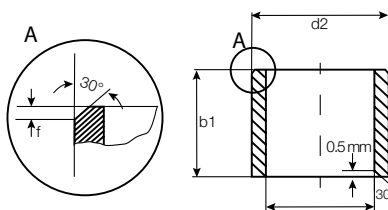
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size		
				h13	Min.	Max.	Min.	Max.	Min.	Max.
H1SM-0304-05	3.0	4.5	5.0		3.006	3.046	4.500	4.512	2.975	3.000
H1SM-0405-04	4.0	5.5	4.0		4.010	4.058	5.500	5.512	3.970	4.000
H1SM-0405-06	4.0	5.5	6.0				5.500	5.512	3.970	4.000
H1SM-0507-05	5.0	7.0	5.0		5.010	5.058	7.000	7.015	4.970	5.000
H1SM-0507-10	5.0	7.0	10.0				7.000	7.015	4.970	5.000
H1SM-0608-06	6.0	8.0	6.0		6.010	6.058	8.000	8.015	5.970	6.000
H1SM-0608-08	6.0	8.0	8.0				8.000	8.015	5.970	6.000
H1SM-0608-10	6.0	8.0	10.0				8.000	8.015	5.970	6.000
H1SM-0810-08	8.0	10.0	8.0		8.013	8.071	10.000	10.015	7.964	8.000
H1SM-0810-10	8.0	10.0	10.0				10.000	10.015	7.964	8.000
H1SM-0810-12	8.0	10.0	12.0				10.000	10.015	7.964	8.000
H1SM-0810-15	8.0	10.0	15.0				10.000	10.015	7.964	8.000
H1SM-1012-08	10.0	12.0	8.0		10.013	10.071	12.000	12.018	9.964	10.000
H1SM-1012-10	10.0	12.0	10.0				12.000	12.018	9.964	10.000
H1SM-1012-12	10.0	12.0	12.0				12.000	12.018	9.964	10.000
H1SM-1012-15	10.0	12.0	15.0				12.000	12.018	9.964	10.000
H1SM-1012-20	10.0	12.0	20.0				12.000	12.018	9.964	10.000
H1SM-1214-10	12.0	14.0	10.0		12.016	12.086	14.000	14.018	11.957	12.000
H1SM-1214-12	12.0	14.0	12.0				14.000	14.018	11.957	12.000
H1SM-1214-15	12.0	14.0	15.0				14.000	14.018	11.957	12.000
H1SM-1214-20	12.0	14.0	20.0				14.000	14.018	11.957	12.000
H1SM-1315-10	13.0	15.0	10.0		13.016	13.086	15.000	15.018	12.957	13.000
H1SM-1315-20	13.0	15.0	10.0				15.000	15.018	12.957	13.000
H1SM-1416-15	14.0	16.0	15.0		14.016	14.086	16.000	16.018	13.957	14.000
H1SM-1416-20	14.0	16.0	20.0				16.000	16.018	13.957	14.000
H1SM-1416-25	14.0	16.0	25.0				16.000	16.018	13.957	14.000
H1SM-1517-15	15.0	17.0	15.0		15.016	15.086	17.000	17.018	14.957	15.000
H1SM-1517-20	15.0	17.0	20.0				17.000	17.018	14.957	15.000
H1SM-1517-25	15.0	17.0	25.0				17.000	17.018	14.957	15.000
H1SM-1618-15	16.0	18.0	15.0		16.016	16.086	18.000	18.018	15.957	16.000
H1SM-1618-20	16.0	18.0	20.0				18.000	18.018	15.957	16.000
H1SM-1618-25	16.0	18.0	25.0				18.000	18.018	15.957	16.000
H1SM-1820-15	18.0	20.0	15.0		18.016	18.086	20.000	20.021	17.957	18.000
H1SM-1820-20	18.0	20.0	20.0				20.000	20.021	17.957	18.000
H1SM-1820-25	18.0	20.0	25.0				20.000	20.021	17.957	18.000
H1SM-2023-10	20.0	23.0	10.0		20.020	20.104	23.000	23.021	19.948	20.000
H1SM-2023-15	20.0	23.0	15.0				23.000	23.021	19.948	20.000

iglide®
H1

iglide® H1 - Product Range

Sleeve bearing - Metric



Order key

Type	Dimensions
H1 S M -03 04 -05	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

For tolerance values please refer to page 381

Dimensions according to ISO 3547-1 and special dimensions

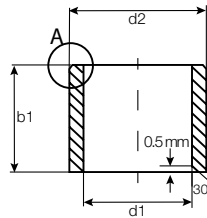
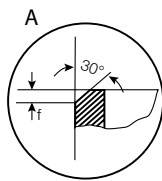
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
H1SM-2023-20	20.0	23.0	20.0	20.020	20.104	23.000	23.021	19.948	20.000
H1SM-2023-25	20.0	23.0	25.0			23.000	23.021	19.948	20.000
H1SM-2023-30	20.0	23.0	30.0			23.000	23.021	19.948	20.000
H1SM-2225-15	22.0	25.0	15.0	22.020	22.104	25.000	25.021	21.948	22.000
H1SM-2225-20	22.0	25.0	20.0			25.000	25.021	21.948	22.000
H1SM-2225-25	22.0	25.0	25.0			25.000	25.021	21.948	22.000
H1SM-2225-30	22.0	25.0	30.0			25.000	25.021	21.948	22.000
H1SM-2427-15	24.0	27.0	15.0	24.020	24.104	27.000	27.021	23.948	24.000
H1SM-2427-20	24.0	27.0	20.0			27.000	27.021	23.948	24.000
H1SM-2427-25	24.0	27.0	25.0			27.000	27.021	23.948	24.000
H1SM-2427-30	24.0	27.0	30.0			27.000	27.021	23.948	24.000
H1SM-2528-15	25.0	28.0	15.0	25.020	25.104	28.000	28.021	24.948	25.000
H1SM-2528-20	25.0	28.0	20.0			28.000	28.021	24.948	25.000
H1SM-2528-25	25.0	28.0	25.0			28.000	28.021	24.948	25.000
H1SM-2528-30	25.0	28.0	30.0			28.000	28.021	24.948	25.000
H1SM-2832-20	28.0	32.0	20.0	28.020	28.104	32.000	32.021	27.948	28.000
H1SM-2832-25	28.0	32.0	25.0			32.000	32.021	27.948	28.000
H1SM-2832-30	28.0	32.0	30.0			32.000	32.021	27.948	28.000
H1SM-3034-20	30.0	34.0	20.0	30.020	30.104	34.000	34.025	29.948	30.000
H1SM-3034-25	30.0	34.0	25.0			34.000	34.025	29.948	30.000
H1SM-3034-30	30.0	34.0	30.0			34.000	34.025	29.948	30.000
H1SM-3034-40	30.0	34.0	40.0			34.000	34.025	29.948	30.000
H1SM-3236-20	32.0	36.0	20.0	32.025	32.125	36.000	36.025	31.938	32.000
H1SM-3236-30	32.0	36.0	30.0			36.000	36.025	31.938	32.000
H1SM-3539-20	35.0	39.0	20.0	35.025	35.125	39.000	39.025	34.938	35.000
H1SM-3539-30	35.0	39.0	30.0			39.000	39.025	34.938	35.000
H1SM-3539-40	35.0	39.0	40.0			39.000	39.025	34.938	35.000
H1SM-3539-50	35.0	39.0	50.0			39.000	39.025	34.938	35.000
H1SM-4044-20	40.0	44.0	20.0	40.025	40.125	44.000	44.025	39.938	40.000
H1SM-4044-30	40.0	44.0	30.0			44.000	44.025	39.938	40.000
H1SM-4044-40	40.0	44.0	40.0			44.000	44.025	39.938	40.000
H1SM-4044-50	40.0	44.0	50.0			44.000	44.025	39.938	40.000
H1SM-4550-20	45.0	50.0	20.0	45.025	45.125	50.000	50.025	44.938	45.000
H1SM-4550-30	45.0	50.0	30.0			50.000	50.025	44.938	45.000
H1SM-4550-40	45.0	50.0	40.0			50.000	50.025	44.938	45.000
H1SM-4550-50	45.0	50.0	50.0			50.000	50.025	44.938	45.000
H1SM-5055-20	50.0	55.0	20.0			50.025	50.125	55.000	55.030

iglide® H1 - Product Range

Sleeve bearing - Metric

iglide®
H1



Order key

Type	Dimensions
H1	S M -03 04-05
iglide® material	Form S (sleeve)
	Metric
	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

For tolerance values
please refer to page 381

Dimensions according to ISO 3547-1 and special dimensions

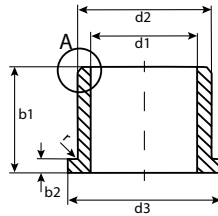
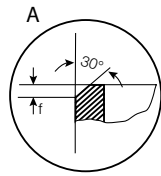
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
H1SM-5055-30	50.0	55.0	30.0	50.025	50.125	55.000	55.030	49.938	50.000
H1SM-5055-40	50.0	55.0	40.0			55.000	55.030	49.938	50.000
H1SM-5055-50	50.0	55.0	50.0			55.000	55.030	49.938	50.000
H1SM-5055-60	50.0	55.0	60.0			55.000	55.030	49.938	50.000

iglide®
H1

iglide® H1 - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
H1	F M -03 04 -05

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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 $r = \max. 0.5$

 For tolerance values
please refer to page 381

Dimensions according to ISO 3547-1 and special dimensions

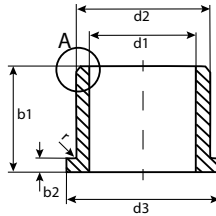
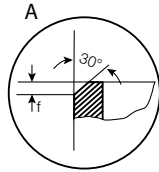
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
H1FM-0304-05	3.0	4.5	7.5	5.0	0.75	3.006	3.046	4.500	4.512	2.975	3.000
H1FM-0405-04	4.0	5.5	9.5	4.0	0.75	4.010	4.058	5.500	5.512	3.970	4.000
H1FM-0405-06	4.0	5.5	9.5	6.0	0.75			5.500	5.512	3.970	4.000
H1FM-0507-05	5.0	7.0	11.0	5.0	1.00	5.010	5.058	7.000	7.015	4.970	5.000
H1FM-0608-04	6.0	8.0	12.0	4.0	1.0	6.010	6.058	8.000	8.015	5.970	6.000
H1FM-0608-06	6.0	8.0	12.0	6.0	1.0			8.000	8.015	5.970	6.000
H1FM-0608-08	6.0	8.0	12.0	8.0	1.0			8.000	8.015	5.970	6.000
H1FM-0608-10	6.0	8.0	12.0	10.0	1.0			8.000	8.015	5.970	6.000
H1FM-0810-05	8.0	10.0	15.0	5.5	1.0	8.013	8.071	10.000	10.015	7.964	8.000
H1FM-0810-065	8.0	10.0	15.0	6.5	1.0			10.000	10.015	7.964	8.000
H1FM-0810-07	8.0	10.0	15.0	7.5	1.0			10.000	10.015	7.964	8.000
H1FM-0810-09	8.0	10.0	15.0	9.5	1.0			10.000	10.015	7.964	8.000
H1FM-0810-10	8.0	10.0	15.0	10.0	1.0			10.000	10.015	7.964	8.000
H1FM-1012-07	10.0	12.0	18.0	7.0	1.0	10.013	10.071	12.000	12.018	9.964	10.000
H1FM-1012-09	10.0	12.0	18.0	9.0	1.0			12.000	12.018	9.964	10.000
H1FM-1012-10	10.0	12.0	18.0	10.0	1.0			12.000	12.018	9.964	10.000
H1FM-1012-12	10.0	12.0	18.0	12.0	1.0			12.000	12.018	9.964	10.000
H1FM-1012-17	10.0	12.0	18.0	17.0	1.0			12.000	12.018	9.964	10.000
H1FM-1214-07	12.0	14.0	20.0	7.0	1.0	12.016	12.086	14.000	14.018	11.957	12.000
H1FM-1214-09	12.0	14.0	20.0	9.0	1.0			14.000	14.018	11.957	12.000
H1FM-1214-12	12.0	14.0	20.0	12.0	1.0			14.000	14.018	11.957	12.000
H1FM-1214-17	12.0	14.0	20.0	17.0	1.0			14.000	14.018	11.957	12.000
H1FM-1416-12	14.0	16.0	22.0	12.0	1.0	14.016	14.086	16.000	16.018	13.957	14.000
H1FM-1416-17	14.0	16.0	22.0	17.0	1.0			16.000	16.018	13.957	14.000
H1FM-1517-09	15.0	17.0	23.0	9.0	1.0	15.016	15.086	17.000	17.018	14.957	15.000
H1FM-1517-12	15.0	17.0	23.0	12.0	1.0			17.000	17.018	14.957	15.000
H1FM-1517-17	15.0	17.0	23.0	17.0	1.0			17.000	17.018	14.957	15.000
H1FM-1618-12	16.0	18.0	24.0	12.0	1.0	16.016	16.086	18.000	18.018	15.957	16.000
H1FM-1618-17	16.0	18.0	24.0	17.0	1.0			18.000	18.018	15.957	16.000
H1FM-1618-25	16.0	18.0	24.0	25.0	1.0			18.000	18.018	15.957	16.000
H1FM-1820-04	18.0	20.0	26.0	4.0	1.0	18.016	18.086	20.000	20.021	17.957	18.000
H1FM-1820-12	18.0	20.0	26.0	12.0	1.0			20.000	20.021	17.957	18.000
H1FM-1820-17	18.0	20.0	26.0	17.0	1.0			20.000	20.021	17.957	18.000
H1FM-1820-22	18.0	20.0	26.0	22.0	1.0			20.000	20.021	17.957	18.000
H1FM-2023-11	20.0	23.0	30.0	11.5	1.5	20.020	20.104	23.000	23.021	19.948	20.000
H1FM-2023-16	20.0	23.0	30.0	16.0	1.5			23.000	23.021	19.948	20.000
H1FM-2023-21	20.0	23.0	30.0	21.5	1.5			23.000	23.021	19.948	20.000

iglide® H1 - Product Range

Flange bearing - Metric

iglide®
H1



Order key

Type	Dimensions
H1	F M-03 04-05
iglide® material	Inner-Ø d1 (mm)
Form F (flange)	Outer-Ø d2 (mm)
Metric	Length b1 (mm)

$r = \max. 0.5$

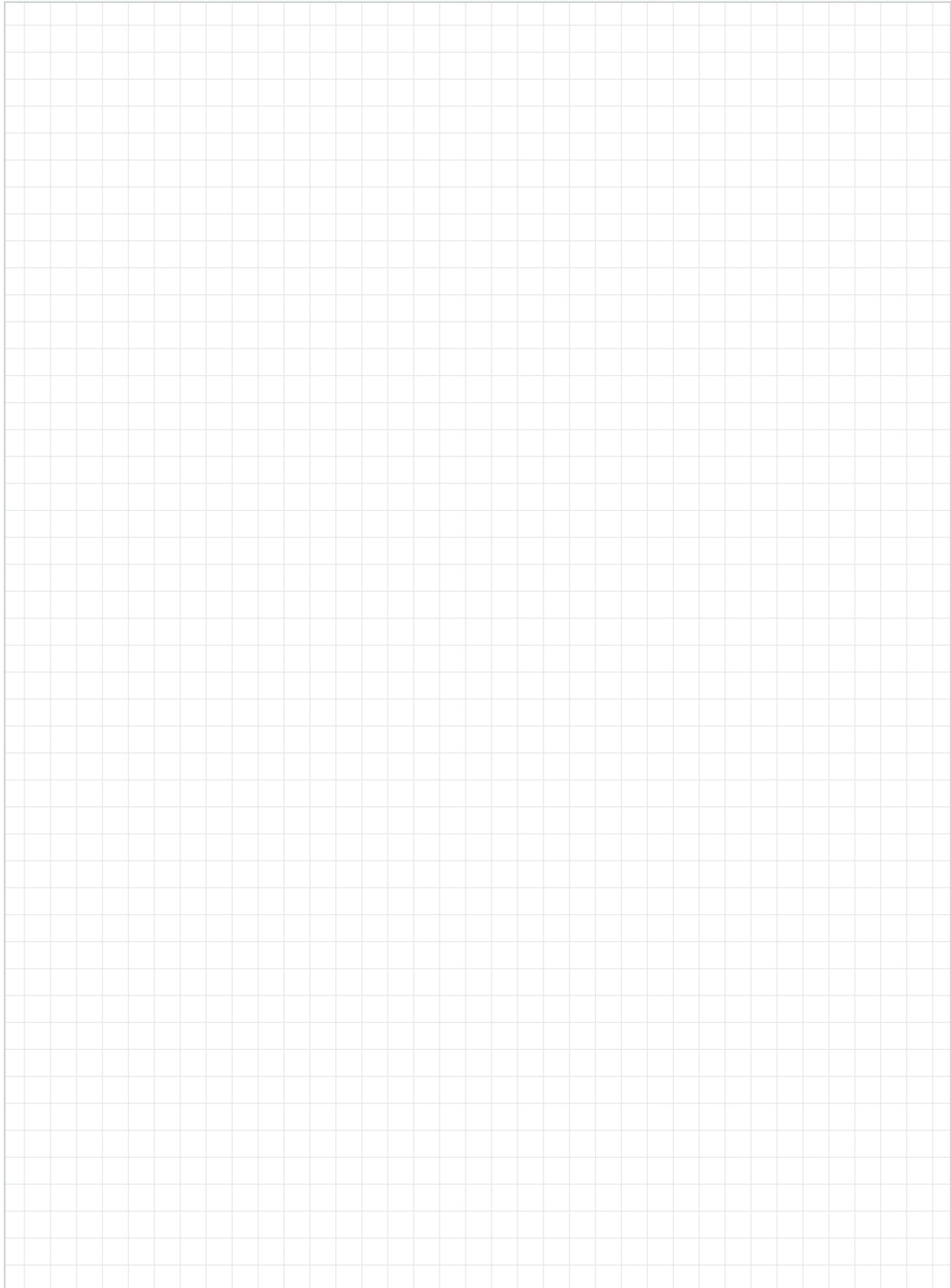
For tolerance values
please refer to page 381

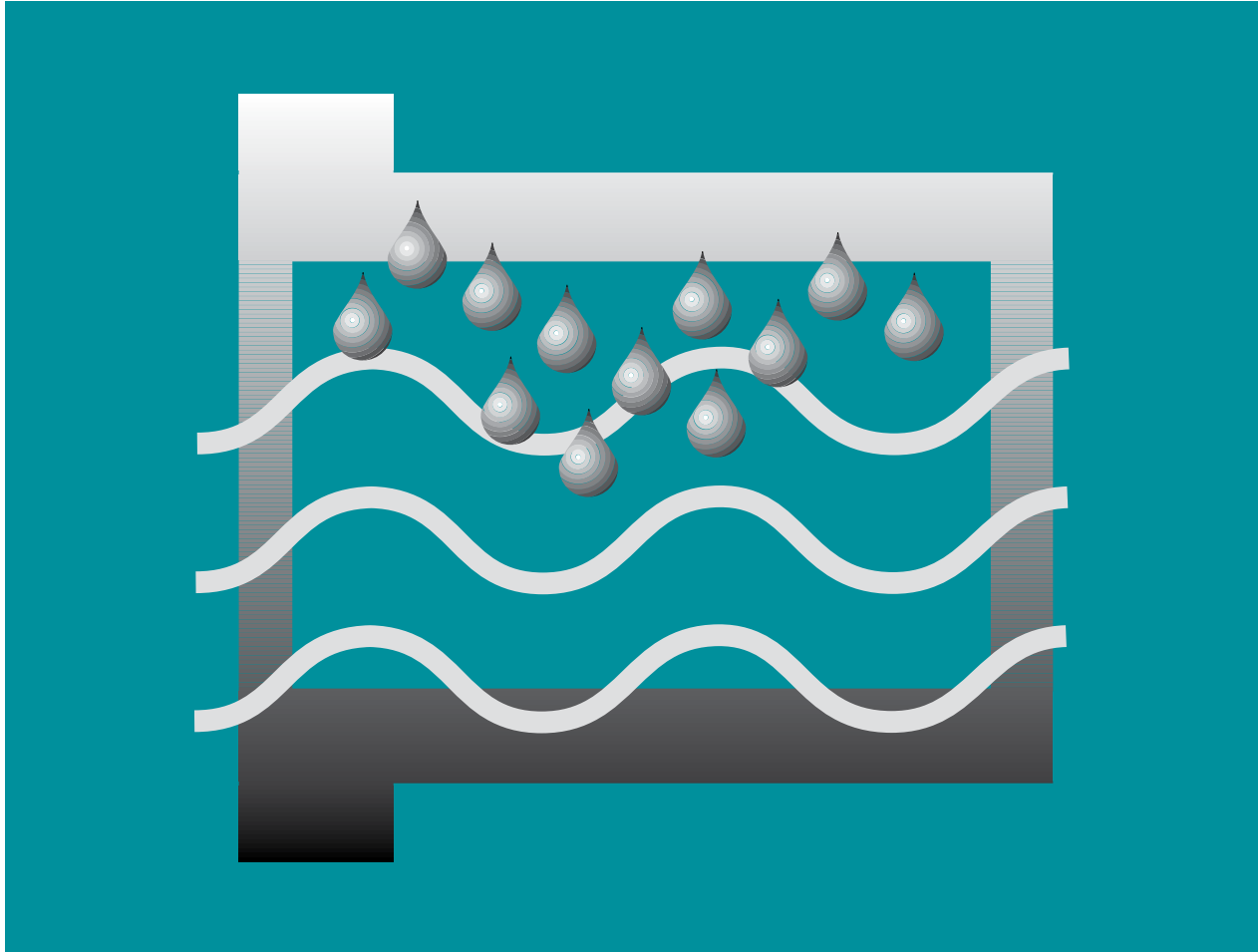
Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3 d13	b1 h13	b2 -0.14	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
H1FM-2023-30	20.0	23.0	30.0	30.0	1.5	20.020	20.104	23.000	23.021	19.948	20.000
H1FM-2528-11	25.0	28.0	35.0	11.0	1.5	25.020	25.104	28.000	28.021	24.948	25.000
H1FM-2528-16	25.0	28.0	35.0	16.5	1.5			28.000	28.021	24.948	25.000
H1FM-2528-21	25.0	28.0	35.0	21.5	1.5			28.000	28.021	24.948	25.000
H1FM-3034-16	30.0	34.0	42.0	16.0	2.0	30.020	30.104	34.000	34.025	29.948	30.000
H1FM-3034-26	30.0	34.0	42.0	26.0	2.0			34.000	34.025	29.948	30.000
H1FM-3539-16	35.0	39.0	47.0	16.0	2.0	35.025	35.125	39.000	39.025	34.938	35.000
H1FM-3539-26	35.0	39.0	47.0	26.0	2.0			39.000	39.025	34.938	35.000
H1FM-4044-30	40.0	44.0	52.0	30.0	2.0	40.025	40.125	44.000	44.025	39.938	40.000
H1FM-4044-40	40.0	44.0	52.0	40.0	2.0			44.000	44.025	39.938	40.000
H1FM-4550-50	45.0	50.0	58.0	50.0	2.0	45.025	45.125	50.000	50.025	44.938	45.000

Notes





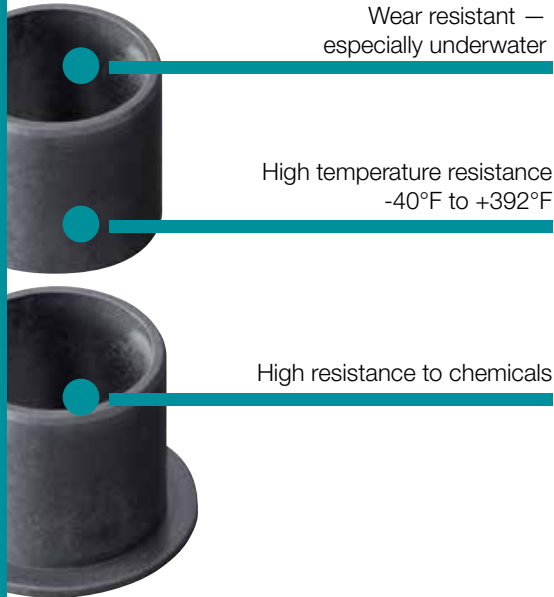
iglide® H370

- Wear resistant - especially underwater
- High temperature resistance -40°F to +392°F
- High chemical resistance

iglide®
H370

iglide® H370 - For submerged applications

For temperatures up to 392°F



Wear resistant —
especially underwater

High temperature resistance
-40°F to +392°F

High resistance to chemicals

iglide® H370 is the right solution for underwater applications. The bearings absorb extremely high loads, are resistant to chemicals and can be used at temperatures up to +392°F.



- For use underwater
- When high temperature resistance is necessary
- When high mechanical loading and wear resistance is required
- For use in contact with chemicals



- When mechanical reaming of the wall surface is necessary
 - iglide® M250
- When high wear resistance is needed
 - iglide® L280
- For use in dirty surroundings
 - iglide® Z
- When a cost-effective, high volume solution is required
 - iglide® H2



Available from stock

Detailed information about delivery time online.



max. +392°F
min. -40°F



Price breaks online

No minimum order.



Ø 1/8 to 1-1/4 inches
more dimensions on request



Typical application areas

- Offshore
- Marine engineering
- Fluid technology
- Packaging
- Plant construction



Ø 3 to 75 mm
more dimensions on request



iglide® H370 - Technical Data

 iglide®
H370

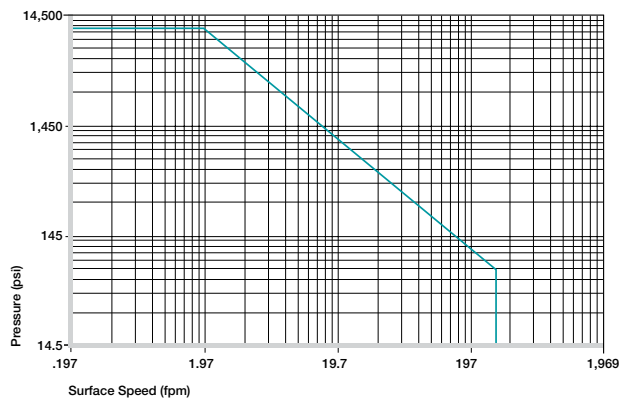
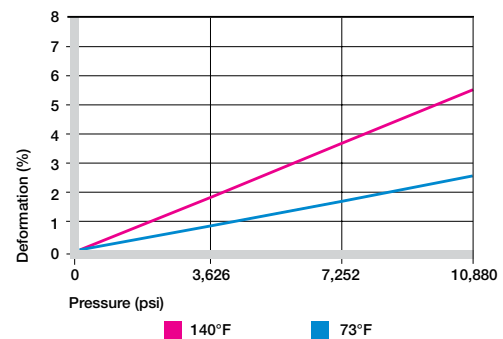
Material Properties Table

General Properties	Unit	iglide® H370	Testing Method
Density	g/cm ³	1.66	
Color		gray	
Max. moisture absorption at 73°F / 50% r.h.	% weight	< 0.1	DIN 53495
Max. moisture absorption	% weight	< 0.1	
Coefficient of friction, dynamic against steel	μ	0.07 - 0.17	
pv value, max. (dry)	psi x fpm	21,000	
Mechanical Properties			
Modulus of elasticity	psi	1,610,000	DIN 53457
Tensile strength at 68°F	psi	19,580	DIN 53452
Compressive strength	psi	11,460	
Permissible static surface pressure (68°F)	psi	10,880	
Shore D-hardness		82	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	392	
Max. application temperature, short-term	°F	464	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.5	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	5	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	< 10 ⁵	DIN IEC 93
Surface resistance	Ω	< 10 ⁵	DIN 53482

Compressive Strength

The graph shows the elastic deformation of iglide® H370 for radial loads. At the maximum permissible load of 10,875 psi, the deformation is approximately 2.5% at room temperature.

► Compressive strength, Page 63



Permissible pv value for iglide® H370 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

The maximum permissible surface speed depends on the temperature during operation. iglide® H370 is able to run at speeds of up to 236 fpm (rotating) to 787 fpm (linear)

► Surface speed, Page 64

► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	236	295
Oscillating	157	216
Linear	787	984

Maximum surface speeds

Temperatures

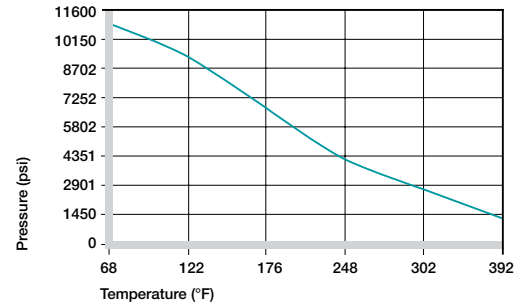
iglide® H370 is an extremely temperature-resistant material. With a maximum permissible short-term temperature of 464°F, iglide® H370 plain bearings may be subjected to a heat treating process without additional load. With increasing temperatures, the compressive strength of iglide® H370 plain bearings decreases. The graph to the right shows this relationship.

The ambient temperatures prevalent in the bearing system also have an effect on the bearing wear. With increasing temperatures, the wear increases.

iglide® H370 loses approximately 75% of its compressive strength when the temperature increases from room temperature to 302°F.

On the other hand, there is little change in wear resistance at the same temperature range.

► Application temperatures, Page 67



Recommended permissible maximum static surface pressure of iglide® H370 as a result of the temperature

iglide® H370	Application Temperature
Minimum	- 40°F
Max. long-term	+392°F
Max. short-term	+464°F
Additional axial securing	+212°F

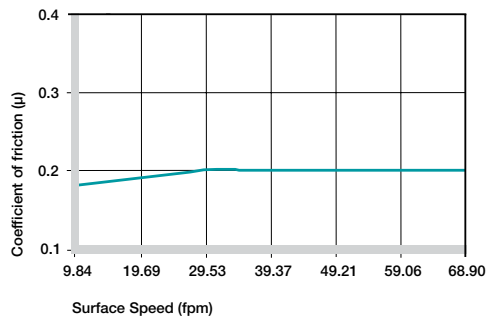
Temperature limits for iglide® H370

Friction and Wear

The coefficient of friction alters only slightly, like the wear resistance with increasing load and surface speed.

► Coefficients of friction and surfaces, Page 68

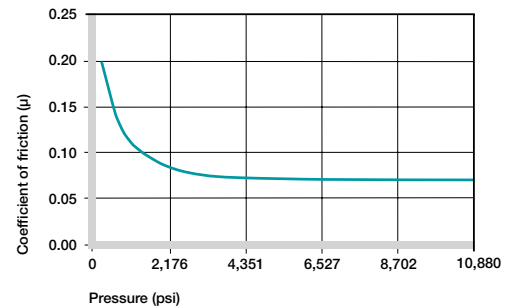
► Wear resistance, Page 69



Coefficients of friction for iglide® H370 as a result of the surface speed; p = 108 psi

iglide® H370	Coefficient of Friction
Dry	0.07 - 0.17
Grease	0.09
Oil	0.04
Water	0.04

Coefficients of friction for iglide® H370 against steel
(Shaft finish = 40 rms, 50 HRC)



Coefficients of friction for iglide® H370 as a result of the load, v = 1.97 fpm

iglide® H370 - Technical Data

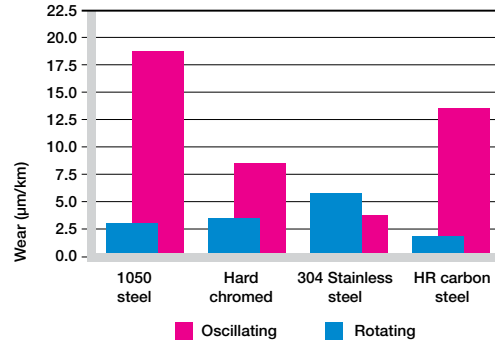
iglide®
H370

Shaft Materials

The graphs show results of testing different shaft materials with plain bearings made of iglide® H370.

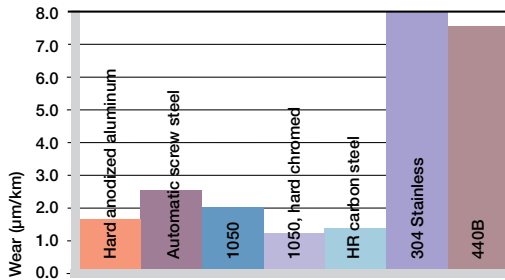
For loads up to 290 psi, A hard-chromed shaft is the best material for iglide® H370 in rotating applications. Note the high wear values for 303 Stainless shafts, which have a tendency to stick-slip because of their very smooth surfaces. The HR Carbon Steel shaft has better rotational values than Cold Rolled Steel starting at 290 psi. On the other hand, for oscillating movements, the 303 Stainless Steel shaft has a clear superiority. As the graph shows, it produces, at 290 psi, a lower wear by a factor of 11 than the Cold Rolled Steel shaft. For iglide® H370 a ground surface with an average roughness of 8-16 rms is recommended for the shaft.

If the shaft material you plan to use is not contained in this list, please contact us.



Wear for oscillating and rotating applications with different shaft materials: p = 290 psi

► Shaft Materials, Page 71

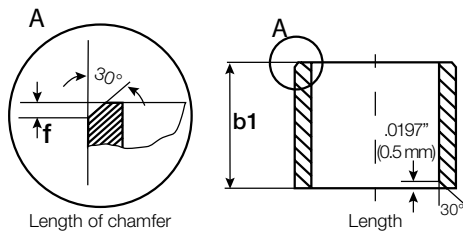


Wear of iglide® H370, rotating application with different shaft materials, p = 108 psi, v = 98 fpm

Installation Tolerances

iglide® H370 plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

- Tolerance table, Page 75
- Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

iglide® H370 - Technical Data

Chemical Resistance

iglide® H370 plain bearings have a good chemical resistance. They are resistant to most lubricants, iglide® H370 is also resistant to most weak organic and inorganic acids.

The moisture absorption of iglide® H370 plain bearings is below 0.1% in standard atmosphere. The saturation limit in water is also below 0.1%. For this reason, iglide® H370 plain bearings are often used for underwater applications.

► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	+ to 0
Strong acids	+ to –
Weak alkaline	+
Strong alkaline	+

+ resistant, 0 conditionally resistant, – not resistant

Chemical resistance of iglide® H370

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364

Radiation Resistance

iglide® H370 withstands neutron and gamma particle radiation without detectable losses to its excellent mechanical properties. Plain bearings made from iglide® H370 are resistant to radiation up to an intensity of 2×10^2 Gy

UV-Resistance

iglide® H370 plain bearings are permanently resistant against UV radiation.

Vacuum

In a vacuum environment, moisture is released as a vapor. However, due to its low moisture absorption, use in a vacuum is possible.

Electrical Properties

iglide® H370 plain bearings are electrically conducting.

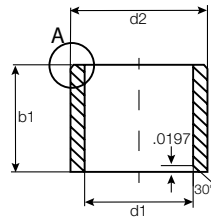
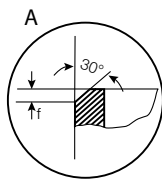
iglide® H370	
Specific volume resistance	$< 10^5 \Omega\text{cm}$
Surface resistance	$< 10^5 \Omega$

Electrical properties of iglide® H370

iglide® H370 - Product Range

Sleeve bearing - Inch

iglide®
H370



For tolerance values
please refer to page 393



Order key

Type	Dimensions
H370 S	-01 03-02
iglide® material	Form S (sleeve)
Inch	Inner-Ø d1 (inch)
	Outer-Ø d2 (inch)
	Length b1 (inch)

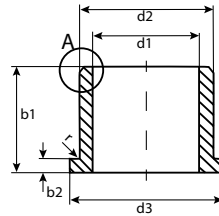
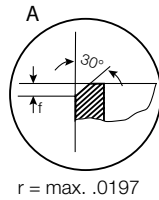
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
H370SI-0203-03	1/8	3/16	3/16	.1251	.1269	.1873	.1878	.1236	.1243
H370SI-0304-04	3/16	1/4	1/4	.1873	.1892	.2497	.2503	.1858	.1865
H370SI-0405-04	1/4	5/16	1/4	.2498	.2521	.3122	.3128	.2481	.2490
H370SI-0506-06	5/16	3/8	3/8	.3125	.3148	.3747	.3753	.3106	.3115
H370SI-0607-08	3/8	15/32	1/2	.3750	.3773	.4684	.4691	.3731	.3740
H370SI-0809-08	1/2	19/32	1/2	.5003	.5030	.5934	.5941	.4980	.4990
H370SI-1011-12	5/8	23/32	3/4	.6253	.6280	.7184	.7192	.6230	.6240
H370SI-1214-12	3/4	7/8	3/4	.7505	.7541	.8747	.8755	.7479	.7491
H370SI-1416-16	7/8	1	1	.8757	.8791	.9997	1.0005	.8729	.8741
H370SI-1618-16	1	1 1/8	1	1.0007	1.0041	1.1247	1.1255	.9979	.9991
H370SI-2022-20	1 1/4	1 13/32	1 1/4	1.2508	1.2548	1.4058	1.4068	1.2472	1.2488

iglide®
H370

iglide® H370 - Product Range

Flange bearing - Inch



For tolerance values
please refer to page 393



Order key

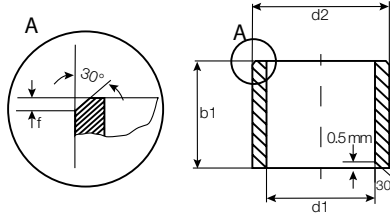
Type	Dimensions
H370 F I -02 03-02	
iglide® material	
Form F (flange)	
Inch	
Inner-Ø d1 (inch)	
Outer-Ø d2 (inch)	
Length b1 (inch)	

*Based on steel housing bore

Part Number	d1	d2	b1	d3	b2 -.0055	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
H370FI-0203-03	1/8	3/16	3/16	.312	.032	.1251	.1269	.1873	.1878	.1236	.1243
H370FI-0304-04	3/16	1/4	1/4	.375	.032	.1873	.1892	.2497	.2503	.1858	.1865
H370FI-0405-04	1/4	5/16	1/4	.500	.032	.2498	.2521	.3122	.3128	.2481	.2490
H370FI-0506-06	5/16	3/8	3/8	.562	.032	.3125	.3148	.3747	.3753	.3106	.3115
H370FI-0607-08	3/8	15/32	1/2	.687	.046	.3750	.3773	.4684	.4691	.3731	.3740
H370FI-0809-08	1/2	19/32	1/2	.875	.046	.5003	.5030	.5934	.5941	.4980	.4990
H370FI-1011-12	5/8	23/32	3/4	1.000	.046	.6253	.6280	.7184	.7192	.6230	.6240
H370FI-1214-12	3/4	7/8	3/4	1.125	.062	.7505	.7541	.8747	.8755	.7479	.7491
H370FI-1416-16	7/8	1	1	1.250	.062	.8757	.8791	.9997	1.0005	.8729	.8741
H370FI-1618-16	1	1 1/8	1	1.375	.062	1.0007	1.0041	1.1247	1.1255	.9979	.9991
H370FI-2022-20	1 1/4	1 13/32	1 1/4	1.687	.078	1.2508	1.2548	1.4058	1.4068	1.2472	1.2488

iglide® H370 - Product Range

Sleeve bearing - Metric

 iglide®
H370

Order key

Type	Dimensions
H370 S M	-04 05-04

iglide® material

Form S (sleeve)

Metric

Inner-Ø d1 (mm)

Outer-Ø d2 (mm)

Length b1 (mm)

 For tolerance values
please refer to page 393

Dimensions according to ISO 3547-1 and special dimensions

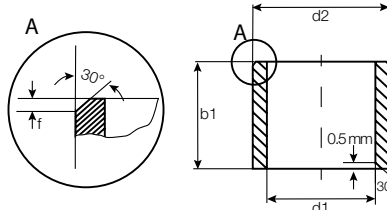
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
H370SM-0304-03	3.0	4.5	3.0	3.006	3.046	4.500	4.512	2.975	3.000
H370SM-0405-04	4.0	5.5	4.0	4.010	4.058	5.500	5.512	3.970	4.000
H370SM-0405-06	4.0	5.5	6.0			5.500	5.512	3.970	4.000
H370SM-0405-12	4.0	5.5	4.0			5.500	5.512	3.970	4.000
H370SM-0507-05	5.0	7.0	5.0	5.010	5.058	7.000	7.015	4.970	5.000
H370SM-0507-10	5.0	7.0	10.0			7.000	7.015	4.970	5.000
H370SM-0608-06	6.0	8.0	6.0	6.010	6.058	8.000	8.015	5.970	6.000
H370SM-0608-08	6.0	8.0	8.0			8.000	8.015	5.970	6.000
H370SM-0608-10	6.0	8.0	10.0			8.000	8.015	5.970	6.000
H370SM-0810-08	8.0	10.0	8.0	8.013	8.071	10.000	10.015	7.964	8.000
H370SM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
H370SM-0810-12	8.0	10.0	12.0			10.000	10.015	7.964	8.000
H370SM-0810-15	8.0	10.0	15.0			10.000	10.015	7.964	8.000
H370SM-1012-08	10.0	12.0	8.0	10.013	10.071	12.000	12.018	9.964	10.000
H370SM-1012-10	10.0	12.0	10.0			12.000	12.018	9.964	10.000
H370SM-1012-12	10.0	12.0	12.0			12.000	12.018	9.964	10.000
H370SM-1012-15	10.0	12.0	15.0			12.000	12.018	9.964	10.000
H370SM-1012-20	10.0	12.0	20.0			12.000	12.018	9.964	10.000
H370SM-1214-10	12.0	14.0	10.0	12.016	12.086	14.000	14.018	11.957	12.000
H370SM-1214-12	12.0	14.0	12.0			14.000	14.018	11.957	12.000
H370SM-1214-15	12.0	14.0	15.0			14.000	14.018	11.957	12.000
H370SM-1214-20	12.0	14.0	20.0			14.000	14.018	11.957	12.000
H370SM-1315-10	13.0	15.0	10.0	13.016	13.086	15.000	15.018	12.957	13.000
H370SM-1315-20	13.0	15.0	20.0			15.000	15.018	12.957	13.000
H370SM-1416-15	14.0	16.0	15.0	14.016	14.086	16.000	16.018	13.957	14.000
H370SM-1416-20	14.0	16.0	20.0			16.000	16.018	13.957	14.000
H370SM-1416-25	14.0	16.0	25.0			16.000	16.018	13.957	14.000
H370SM-1517-15	15.0	17.0	15.0	15.016	15.086	17.000	17.018	14.957	15.000
H370SM-1517-20	15.0	17.0	20.0			17.000	17.018	14.957	15.000
H370SM-1517-25	15.0	17.0	25.0			17.000	17.018	14.957	15.000
H370SM-1618-15	16.0	18.0	15.0	16.016	16.086	18.000	18.018	15.957	16.000
H370SM-1618-20	16.0	18.0	20.0			18.000	18.018	15.957	16.000
H370SM-1618-25	16.0	18.0	25.0			18.000	18.018	15.957	16.000
H370SM-1820-15	18.0	20.0	15.0	18.016	18.086	20.000	20.021	17.957	18.000
H370SM-1820-20	18.0	20.0	20.0			20.000	20.021	17.957	18.000
H370SM-1820-25	18.0	20.0	25.0			20.000	20.021	17.957	18.000
H370SM-2023-10	20.0	23.0	10.0	20.020	20.104	23.000	23.021	19.948	20.000

iglide®
H370

iglide® H370 - Product Range

Sleeve bearing - Metric


Order key

Type	Dimensions
H370 S M -04 05-04	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
please refer to page 393

Dimensions according to ISO 3547-1 and special dimensions

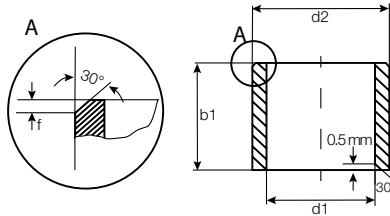
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
H370SM-2023-15	20.0	23.0	15.0	20.020	20.104	23.000	23.021	19.948	20.000
H370SM-2023-20	20.0	23.0	20.0			23.000	23.021	19.948	20.000
H370SM-2023-25	20.0	23.0	25.0			23.000	23.021	19.948	20.000
H370SM-2023-30	20.0	23.0	30.0			23.000	23.021	19.948	20.000
H370SM-2225-15	22.0	25.0	15.0	22.020	22.104	25.000	25.021	21.948	22.000
H370SM-2225-20	22.0	25.0	20.0			25.000	25.021	21.948	22.000
H370SM-2225-25	22.0	25.0	25.0			25.000	25.021	21.948	22.000
H370SM-2225-30	22.0	25.0	30.0			25.000	25.021	21.948	22.000
H370SM-2427-15	24.0	27.0	15.0	24.020	24.104	27.000	27.021	23.948	24.000
H370SM-2427-20	24.0	27.0	20.0			27.000	27.021	23.948	24.000
H370SM-2427-25	24.0	27.0	25.0			27.000	27.021	23.948	24.000
H370SM-2427-30	24.0	27.0	30.0			27.000	27.021	23.948	24.000
H370SM-2528-15	25.0	28.0	15.0	25.020	25.104	28.000	28.021	24.948	25.000
H370SM-2528-20	25.0	28.0	20.0			28.000	28.021	24.948	25.000
H370SM-2528-25	25.0	28.0	25.0			28.000	28.021	24.948	25.000
H370SM-2528-30	25.0	28.0	30.0			28.000	28.021	24.948	25.000
H370SM-2832-20	28.0	32.0	20.0	28.020	28.104	32.000	32.025	27.948	28.000
H370SM-2832-25	28.0	32.0	25.0			32.000	32.025	27.948	28.000
H370SM-2832-30	28.0	32.0	30.0			32.000	32.025	27.948	28.000
H370SM-3034-20	30.0	34.0	20.0	30.020	30.104	34.000	34.025	29.948	30.000
H370SM-3034-25	30.0	34.0	25.0			34.000	34.025	29.948	30.000
H370SM-3034-30	30.0	34.0	30.0			34.000	34.025	29.948	30.000
H370SM-3034-40	30.0	34.0	40.0			34.000	34.025	29.948	30.000
H370SM-3236-20	32.0	36.0	20.0	32.025	32.125	36.000	36.025	31.938	32.000
H370SM-3236-30	32.0	36.0	30.0			36.000	36.025	31.938	32.000
H370SM-3236-40	32.0	36.0	40.0			36.000	36.025	31.938	32.000
H370SM-3539-20	35.0	39.0	20.0	35.025	35.125	39.000	39.025	34.938	35.000
H370SM-3539-30	35.0	39.0	30.0			39.000	39.025	34.938	35.000
H370SM-3539-40	35.0	39.0	40.0			39.000	39.025	34.938	35.000
H370SM-3539-50	35.0	39.0	50.0			39.000	39.025	34.938	35.000
H370SM-4044-20	40.0	44.0	20.0	40.025	40.125	44.000	44.025	39.938	40.000
H370SM-4044-30	40.0	44.0	30.0			44.000	44.025	39.938	40.000
H370SM-4044-40	40.0	44.0	40.0			44.000	44.025	39.938	40.000
H370SM-4044-50	40.0	44.0	50.0			44.000	44.025	39.938	40.000
H370SM-4550-20	45.0	50.0	20.0	45.025	45.125	50.000	50.025	44.938	45.000
H370SM-4550-30	45.0	50.0	30.0			50.000	50.025	44.938	45.000
H370SM-4550-40	45.0	50.0	40.0			50.000	50.025	44.938	45.000

iglide® H370 - Product Range

Sleeve bearing - Metric

iglide®
H370



Order key

Type	Dimensions
H370 S	M-04 05-04

iglide® material

Form S (sleeve)

Metric

Inner-Ø d1 (mm)

Outer-Ø d2 (mm)

Length b1 (mm)

For tolerance values
please refer to page 393

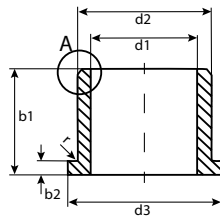
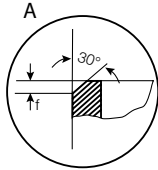
Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
H370SM-4550-50	45.0	50.0	50.0	45.025	45.125	50.000	50.025	44.938	45.000
H370SM-5055-20	50.0	55.0	20.0	50.025	50.125	55.000	55.030	49.938	50.000
H370SM-5055-30	50.0	55.0	30.0			55.000	55.030	49.938	50.000
H370SM-5055-40	50.0	55.0	40.0			55.000	55.030	49.938	50.000
H370SM-5055-50	50.0	55.0	50.0			55.000	55.030	49.938	50.000
H370SM-5055-60	50.0	55.0	60.0			55.000	55.030	49.938	50.000
H370SM-5560-26	55.0	60.0	26.0	55.030	55.150	60.000	60.030	54.926	55.000
H370SM-6065-60	60.0	65.0	60.0	60.030	60.150	65.000	65.030	59.926	60.000
H370SM-7580-60	75.0	80.0	60.0	75.030	75.150	80.000	80.030	74.926	75.000

iglide®
H370

iglide® H370 - Product Range

Flange bearing - Metric



Order key

Type **H370** Dimensions **F M -06 08 -04**

iglide® material
Form F (flange)
Metric
Inner-Ø d1 (mm)
Outer-Ø d2 (mm)
Length b1 (mm)

$r = \max. 0.5$

For tolerance values please refer to page 393

Dimensions according to ISO 3547-1 and special dimensions

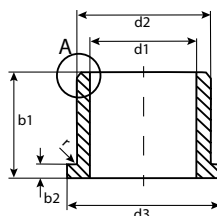
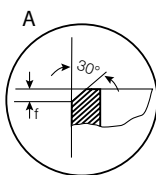
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
H370FM-0405-04	4.0	5.5	9.5	4.0	0.75	4.010	4.058	5.500	5.512	3.970	4.000
H370FM-0507-05	5.0	7.0	11.0	5.0	1.0	5.010	5.058	7.000	7.015	4.970	5.000
H370FM-0608-04	6.0	8.0	12.0	4.0	1.0	6.010	6.058	8.000	8.015	5.970	6.000
H370FM-0608-06	6.0	8.0	12.0	6.0	1.0			8.000	8.015	5.970	6.000
H370FM-0608-08	6.0	8.0	12.0	8.0	1.0			8.000	8.015	5.970	6.000
H370FM-0608-10	6.0	8.0	12.0	10.0	1.0			8.000	8.015	5.970	6.000
H370FM-0810-05	8.0	10.0	15.0	5.5	1.0	8.013	8.071	10.000	10.018	7.964	8.000
H370FM-0810-06	8.0	10.0	15.0	6.0	1.0			10.000	10.018	7.964	8.000
H370FM-0810-07	8.0	10.0	15.0	7.5	1.0			10.000	10.018	7.964	8.000
H370FM-0810-09	8.0	10.0	15.0	9.5	1.0			10.000	10.018	7.964	8.000
H370FM-0810-10	8.0	10.0	15.0	10.0	1.0			10.000	10.018	7.964	8.000
H370FM-0810-15	8.0	10.0	15.0	15.0	1.0			10.000	10.018	7.964	8.000
H370FM-1012-07	10.0	12.0	18.0	7.0	1.0	10.013	10.071	12.000	12.018	9.964	10.000
H370FM-1012-09	10.0	12.0	18.0	9.0	1.0			12.000	12.018	9.964	10.000
H370FM-1012-10	10.0	12.0	18.0	10.0	1.0			12.000	12.018	9.964	10.000
H370FM-1012-12	10.0	12.0	18.0	12.0	1.0			12.000	12.018	9.964	10.000
H370FM-1012-15	10.0	12.0	18.0	15.0	1.0			12.000	12.018	9.964	10.000
H370FM-1012-17	10.0	12.0	18.0	17.0	1.0			12.000	12.018	9.964	10.000
H370FM-1012-20	10.0	12.0	18.0	20.0	1.0			12.000	12.018	9.964	10.000
H370FM-1214-07	12.0	14.0	20.0	7.0	1.0	12.016	12.086	14.000	14.018	11.957	12.000
H370FM-1214-09	12.0	14.0	20.0	9.0	1.0			14.000	14.018	11.957	12.000
H370FM-1214-12	12.0	14.0	20.0	12.0	1.0			14.000	14.018	11.957	12.000
H370FM-1214-15	12.0	14.0	20.0	15.0	1.0			14.000	14.018	11.957	12.000
H370FM-1214-17	12.0	14.0	20.0	17.0	1.0			14.000	14.018	11.957	12.000
H370FM-1214-20	12.0	14.0	20.0	20.0	1.0			14.000	14.018	11.957	12.000
H370FM-1416-12	14.0	16.0	22.0	12.0	1.0	14.016	14.086	16.000	16.018	13.957	14.000
H370FM-1416-17	14.0	16.0	22.0	17.0	1.0			16.000	16.018	13.957	14.000
H370FM-1517-09	15.0	17.0	23.0	9.0	1.0	15.016	15.086	17.000	17.018	14.957	15.000
H370FM-1517-12	15.0	17.0	23.0	12.0	1.0			17.000	17.018	14.957	15.000
H370FM-1517-17	15.0	17.0	23.0	17.0	1.0			17.000	17.018	14.957	15.000
H370FM-1618-10	16.0	18.0	24.0	10.0	1.0	16.016	16.086	18.000	18.018	15.957	16.000
H370FM-1618-12	16.0	18.0	24.0	12.0	1.0			18.000	18.018	15.957	16.000
H370FM-1618-17	16.0	18.0	24.0	17.0	1.0			18.000	18.018	15.957	16.000
H370FM-1820-12	18.0	20.0	26.0	12.0	1.0	18.016	18.086	20.000	20.021	17.957	18.000
H370FM-1820-17	18.0	20.0	26.0	17.0	1.0			20.000	20.021	17.957	18.000
H370FM-1820-22	18.0	20.0	26.0	22.0	1.0	18.032	18.102	20.000	20.021	17.957	18.000
H370FM-2023-11	20.0	23.0	30.0	11.5	1.5	20.020	20.104	23.000	23.021	19.948	20.000

iglide® H370 - Product Range

Flange bearing - Metric

iglide®
H370



Order key

Type Dimensions

H370 F M -06 08 -04

iglide® material

Form F (flange)

Metric

Inner-Ø d1 (mm)

Outer-Ø d2 (mm)

Length b1 (mm)

r = max. 0.5

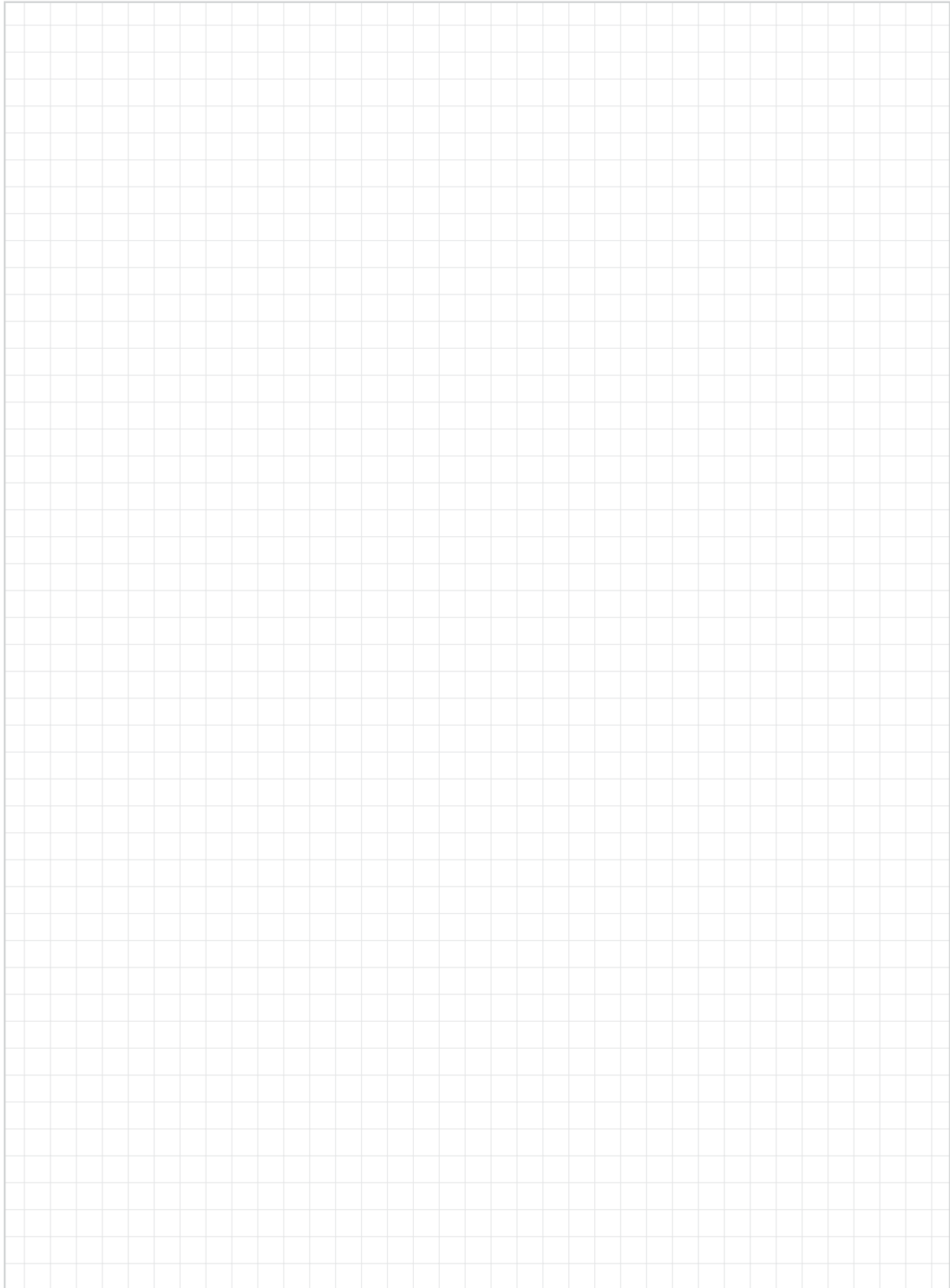
For tolerance values please refer to page 393

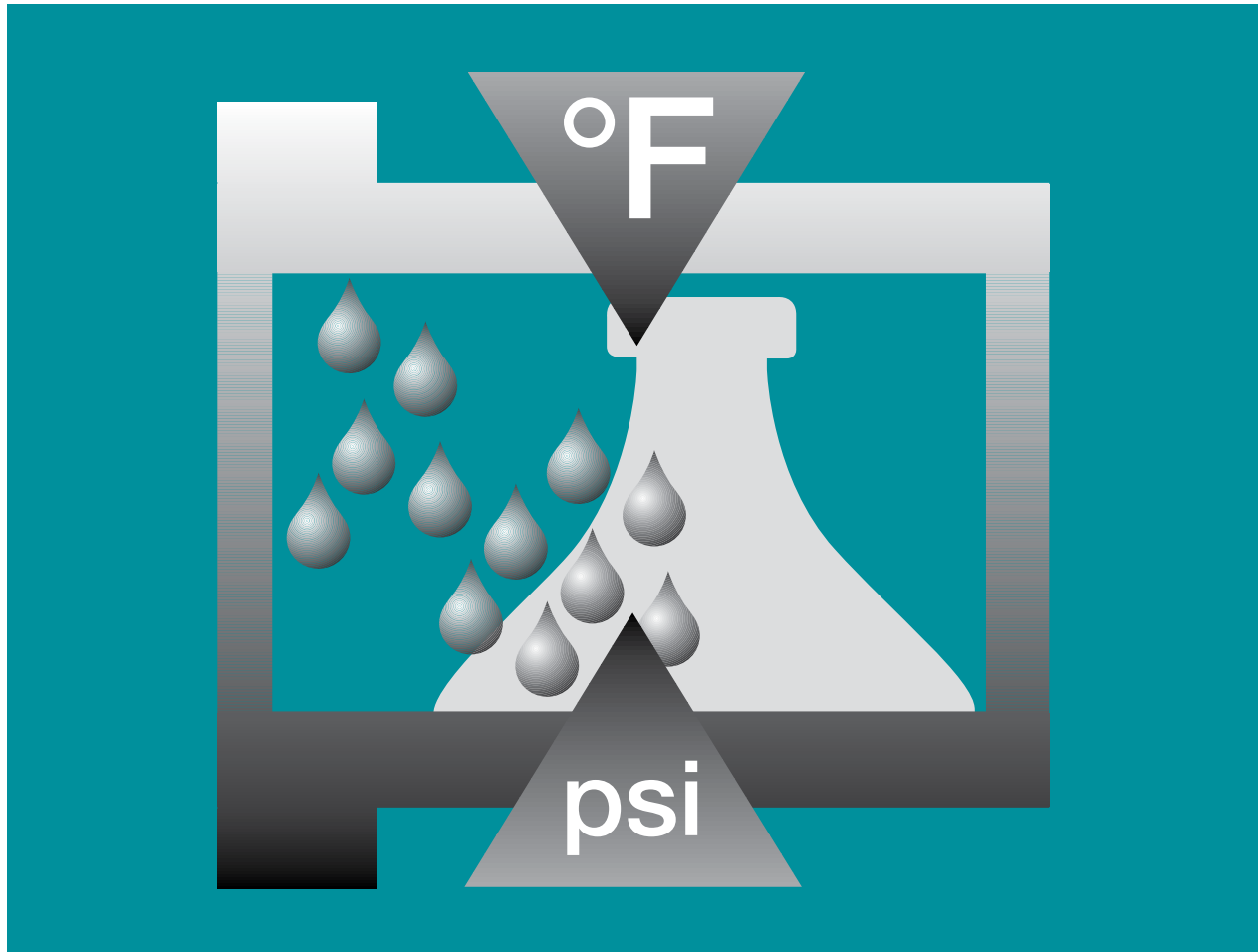
Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max..	Min.	Max.	Min.	Max.
H370FM-2023-16	20.0	23.0	30.0	16.5	1.5	20.020	20.104	23.000	23.021	19.948	20.000
H370FM-2023-21	20.0	23.0	30.0	21.5	1.5			23.000	23.021	19.948	20.000
H370FM-2023-30	20.0	23.0	30.0	30.0	1.5			23.000	23.021	19.948	20.000
H370FM-2528-11	25.0	28.0	35.0	11.5	1.5	25.020	25.104	28.000	28.021	24.948	25.000
H370FM-2528-16	25.0	28.0	35.0	16.5	1.5			28.000	28.021	24.948	25.000
H370FM-2528-21	25.0	28.0	35.0	21.5	1.5			28.000	28.021	24.948	25.000
H370FM-2528-30	25.0	28.0	35.0	30.0	1.5			28.000	28.021	24.948	25.000
H370FM-3034-16	30.0	34.0	42.0	16.0	2.0	30.020	30.104	34.000	34.025	29.948	30.000
H370FM-3034-26	30.0	34.0	42.0	26.0	2.0			34.000	34.025	29.948	30.000
H370FM-3034-40	30.0	34.0	42.0	40.0	2.0			34.000	34.025	29.948	30.000
H370FM-3539-16	35.0	39.0	47.0	16.0	2.0	35.025	35.125	39.000	39.025	34.938	35.000
H370FM-3539-26	35.0	39.0	47.0	26.0	2.0			39.000	39.025	34.938	35.000
H370FM-4044-30	40.0	44.0	52.0	30.0	2.0	40.025	40.125	44.000	44.025	39.938	40.000
H370FM-4044-40	40.0	44.0	52.0	40.0	2.0			44.000	44.025	39.938	40.000
H370FM-4550-50	45.0	50.0	58.0	50.0	2.0	45.025	45.125	50.000	50.025	44.938	45.000
H370FM-5055-50	50.0	55.0	63.0	50.0	2.0	50.025	50.125	55.000	55.030	49.938	50.000
H370FM-6065-50	60.0	65.0	73.0	50.0	2.0	60.030	60.150	65.000	65.030	59.926	60.000
H370FM-7075-50	70.0	75.0	83.0	50.0	2.0	70.030	70.150	75.000	75.030	69.926	70.000

Notes





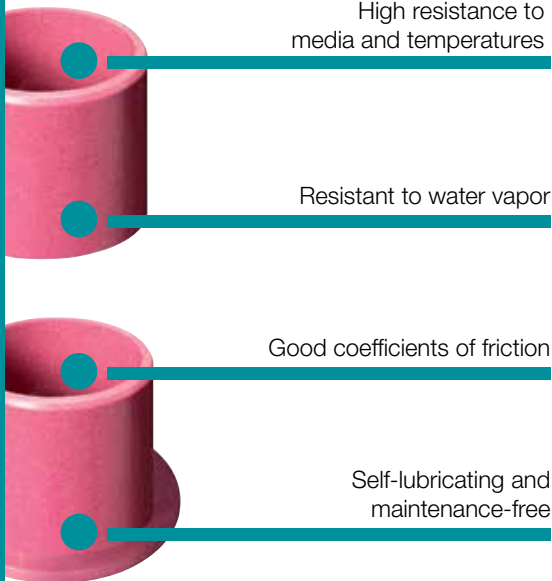
iglide® C500

- High resistance to media and temperatures
- Resistant to steam
- Good coefficients of friction and wear

iglide®
C500

iglide® C500 - Up to 482°F, wear-resistant

High resistance to media and temperatures



High resistance to
media and temperatures

Resistant to water vapor

Good coefficients of friction

Self-lubricating and
maintenance-free

iglide® C500 can be used up to 482°F and is extremely resistant to media – even in cleaning processes using hydrogen peroxide. It is also wear-resistant and has low coefficients of friction. Also suitable for various special designs. The color represents extreme environmental conditions



- When you need an extremely media-resistant bearing with high flexibility
- When you need a very wear-resistant and media resistant bearing



- When you need an FDA compliant high temperature material
 - iglide® A350
 - iglide® A500
- When you need a media-resistant high temperature bearing with the largest possible range of dimensions
 - iglide® T500



Available from stock

Detailed information about delivery time online.



max. +482°F

min. -148°F



Price breaks online

No minimum order.



Ø 6-20 mm

more dimensions on request



Typical application areas

- Plant construction
- Valves
- Chemical industry
- Process technology

iglide® C500 - Technical Data

 iglide®
C500

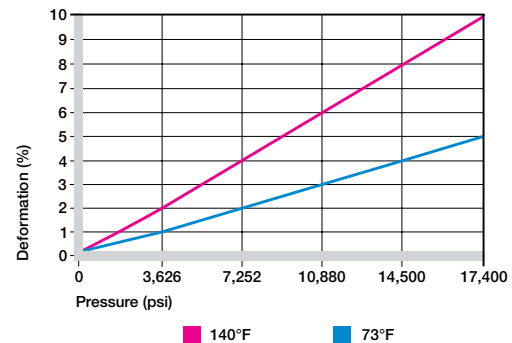
Material Properties Table

General Properties	Unit	iglide® C500	Testing Method
Density	g/cm ³	1.37	
Color		magenta	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.3	DIN 53495
Max. moisture absorption	% weight	0.5	
Coefficient of friction, dynamic against steel	μ	0.07 - 0.19	
pv value, max. (dry)	psi x fpm	19,500	
Mechanical Properties			
Modulus of elasticity	psi	435,110	DIN 53457
Tensile strength at 68°F	psi	14,500	DIN 53452
Compressive strength	psi	15,950	
Permissible static surface pressure (68°F)	psi	15,950	
Shore D-hardness		81	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	482	
Max. application temperature, short-term	°F	572	
Min. application temperature	°F	-148	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	9	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹⁴	DIN IEC 93
Surface resistance	Ω	> 10 ¹³	DIN 53482

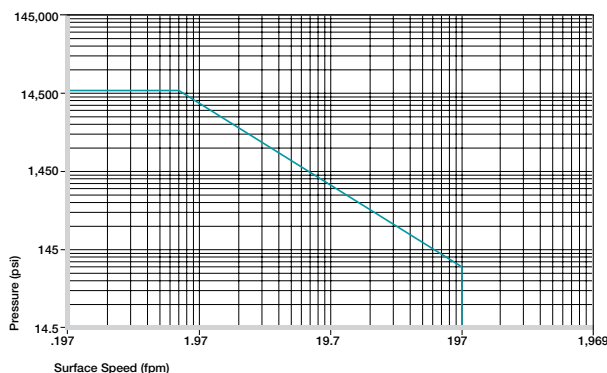
Compressive Strength

With increasing temperatures, the compressive strength of iglide® C500 plain bearings decreases. The graph shows this inverse relationship. However, at an operation temperature of +392 °F the permissible surface pressure is close to 2,901 psi. The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® C500 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

The maximum allowable sliding speed is based on the friction heat generated at the bearing surface. The temperature should only be permitted to increase to a value that will ensure a sustainable use of the bearing with respect to wear and dimensional integrity. The maximum values stated in the table are valid only with minimum pressure loads and are often not attained in practice.

► Surface speed, Page 64
 ► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	177	216
Oscillating	137	197
Linear	472	551

Maximum surface speeds

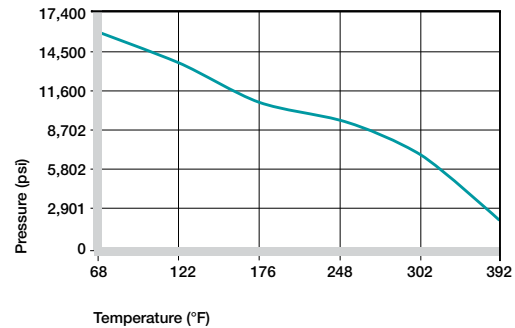
Temperatures

iglide® C500 belongs to the most temperature resistant iglide® materials. Similar to all thermoplastics, with increasing temperatures, the compressive strength of iglide® C500 bearings decreases. The ambient temperatures prevalent in the bearing system also have an effect on the bearing wear. The wear rises with increasing temperatures. At temperatures over +266°F an additional securing is required.

► Application temperatures, Page 67

iglide® C500	Application Temperature
Minimum	-148°F
Max. long-term	+482°F
Max. short-term	+572°F
Additional axial securing	+266°F

Temperature limits for iglide® C500



Recommended maximum permissible static surface pressure of iglide® C500 as a result of the temperature

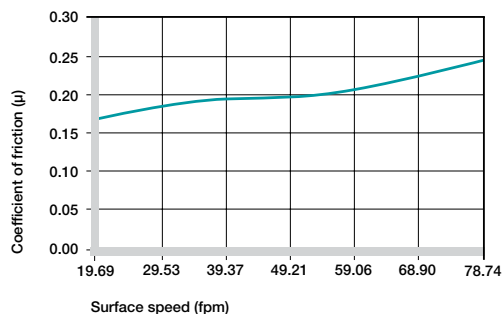
Friction and Wear

The coefficients of friction and wear in iglide® C500 are more favorable than in the other high temperature materials iglide® X and A500. The friction value increases moderately as the sliding speed increases. The friction value initially drops rapidly to less than 0.1 under loads of up to approx. 20 MPa, and then only marginally increases as loads continue to increase.

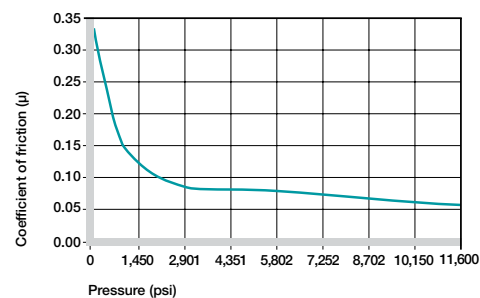
Friction and wear also depend to a high degree on the reverse partner. Shafts that are too smooth, increase both the coefficient of friction and the wear of the bearing. The ideal shaft has an average surface finish of $R_a = 0.6$ to $0.8 \mu\text{m}$.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® C500 as a function of the running speed; $p = 145 \text{ psi}$



Coefficients of friction of iglide® C500 as a function of the load, $v = 1.96 \text{ fpm}$

iglide® C500	Coefficient of Friction
Dry	0.07 - 0.19
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® C500 against steel
(Shaft finish = 40 rms, 50 HRC)

iglide® C500 - Technical Data

iglide®
C500

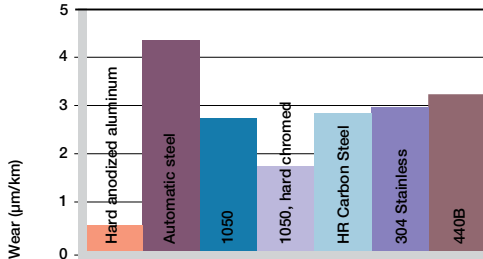
Shaft Materials

The graph below shows the test results of iglide® C500 bearings running against various shaft materials.

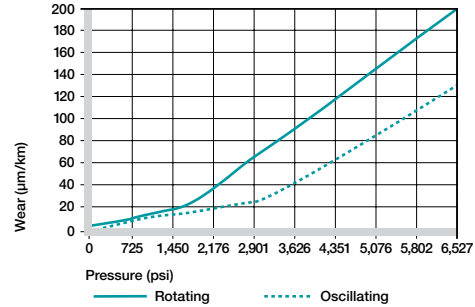
Using the example of a rotating motion at 145 psi and a speed of 59 fpm, it becomes apparent that iglide® C500 has very consistent wear characteristics across a variety of shaft types. This wear rate spikes upward in combination with free-machining steel, and, notably so, spikes downward in combination with HC aluminum.

The wear under rotational loads is higher, specifically with increasing radial loads as compared to pivoting motions.

► Shaft Materials, Page 71



Wear, rotating application with different shaft materials, p = 145 psi, v = 59 fpm

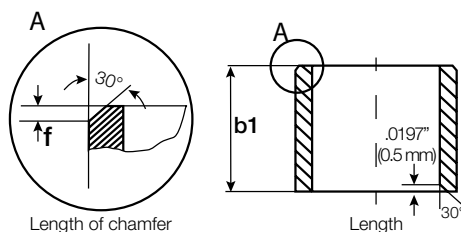


Wear for oscillating and rotating applications with 1050 hard chromed and ground steel as a function of the pressure

Installation Tolerances

iglide® C500 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 / -0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 / -0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 / -0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 / -0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 / -0.0154	
1.9685 to 3.1496	-0.0000 / -0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 / -140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 / -180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 / -220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 / -270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 / -330	
>30 to 50	-0 / -390	
>50 to 80	-0 / -460	

Chemical Resistance

iglide® C500 bearings have a very good resistance against chemicals. Most organic and inorganic acids, alkaline solutions or lubricants do not affect iglide® C500.

The moisture absorption of iglide® C500 plain bearings is below 0.3% in ambient conditions. The saturation limit in water is also below 0.5%.

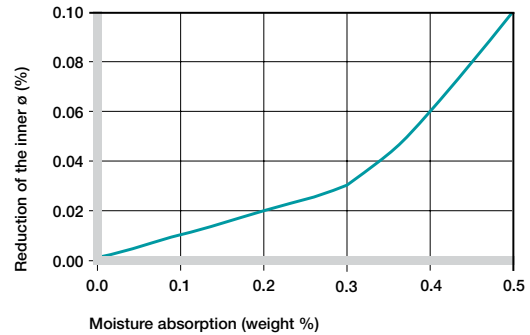
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	+
Strong acids	+
Weak alkaline	+
Strong alkaline	+

+ resistant, 0 conditionally resistant, – not resistant

Chemical resistance of iglide® C500

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® C500 plain bearings

Radiation Resistance

iglide® C500 withstands neutron and gamma particle radiation without detectable losses of its excellent mechanical properties. Plain bearings made from iglide® C500 are resistant to radiation up to an intensity of $3 \cdot 10^2$ Gy.

UV-Resistance

iglide® C500 plain bearings are permanently resistant to UV radiation.

Vacuum

iglide® C500 plain bearings outgas in a vacuum. Due to its low moisture absorption, use in a vacuum is possible.

Electrical Properties

iglide® C500 plain bearings are electrically isolating.

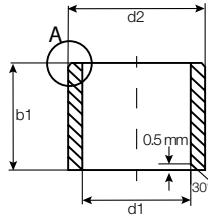
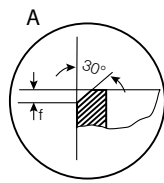
iglide® C500	
Specific volume resistance	> 10^{14} Ωcm
Surface resistance	> 10^{13} Ω

Electrical properties of iglide® C500

iglide® C500 - Product Range

Sleeve bearing - Metric

iglide®
C500



Order key

Type	Dimensions
C500 S M	-06 08-06

iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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For tolerance values
please refer to page 407

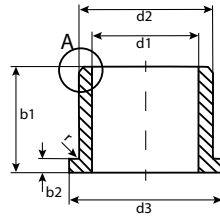
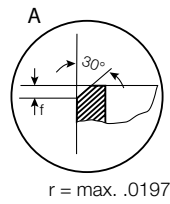
Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
C500SM-0608-06	6.0	8.0	6.0	6.010	6.058	8.000	8.015	5.970	6.000
C500SM-0810-10	8.0	10.0	10.0	8.013	8.071	10.000	10.015	7.964	8.000
C500SM-1012-10	10.0	12.0	10.0	10.013	10.071	12.000	12.018	9.964	10.000
C500SM-1214-12	12.0	14.0	12.0	12.016	12.086	14.000	14.018	11.957	12.000
C500SM-1618-15	16.0	18.0	15.0	16.016	16.086	18.000	18.018	15.957	16.000
C500SM-2023-20	20.0	23.0	20.0	20.020	20.104	23.000	23.021	19.948	20.000
C500SM-4044-30	40.0	44.0	30.0	40.025	40.125	44.000	44.025	39.938	40.000

iglide®
C500

iglide® C500 - Product Range

Flange bearing - Metric



For tolerance values
please refer to page 407

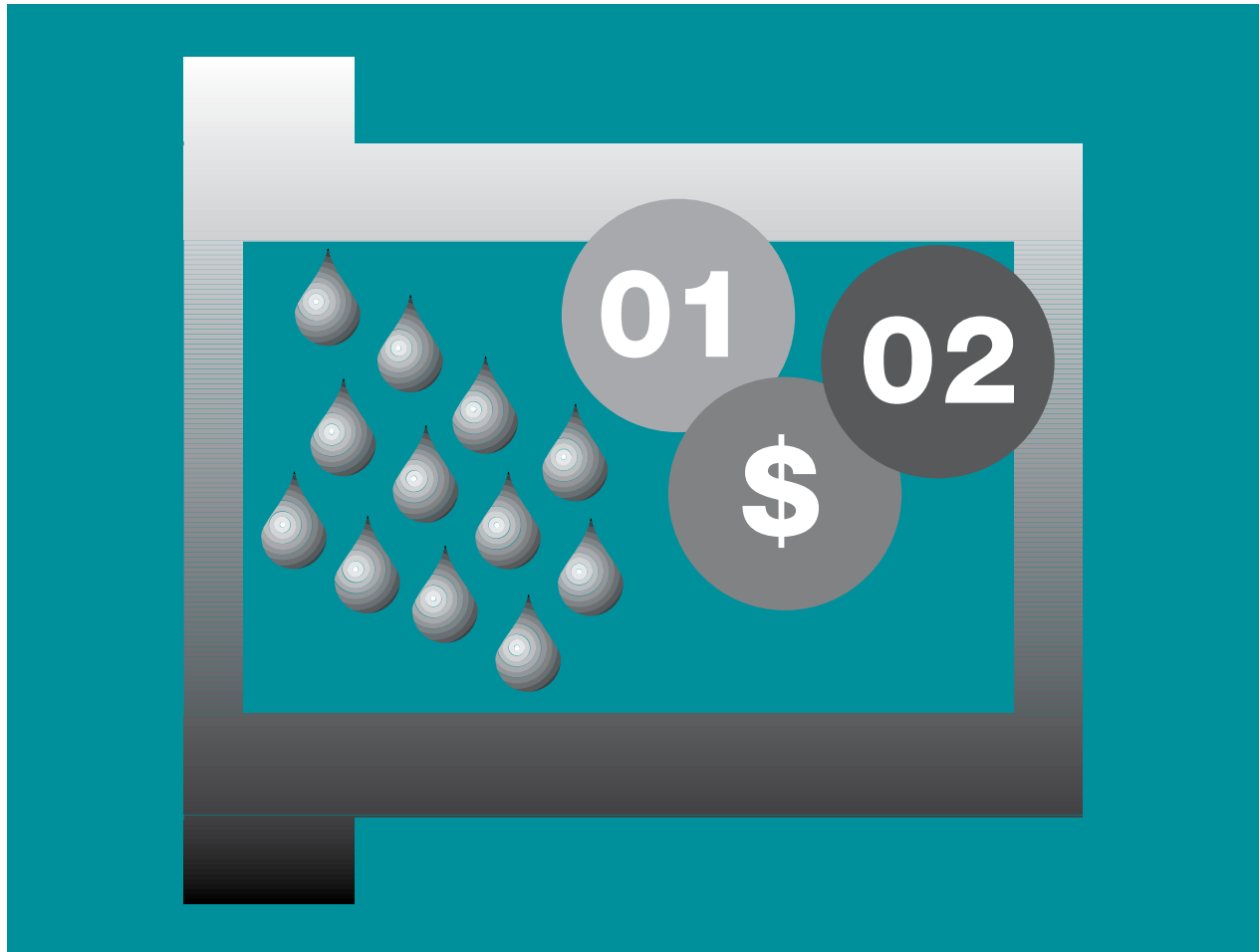


Order key

Type	Dimensions
C500 F M -02 03-02	
iglide® material	Inner-Ø d1 (mm)
Form F (flange)	Outer-Ø d2 (mm)
Metric	Length b1 (mm)

*Based on steel housing bore

Part Number	d1	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
C500FM-0608-06	6.0	8.0	12.0	6.0	1.0	6.010	6.058	8.000	8.015	5.970	6.000
C500FM-0810-10	8.0	10.0	15.0	10.0	1.0	8.013	8.071	10.000	10.015	9.964	10.000
C500FM-1012-10	10.0	12.0	18.0	10.0	1.0	10.013	10.071	12.000	12.018	9.964	10.000
C500FM-1214-12	12.0	14.0	20.0	12.0	1.0	12.016	12.086	14.000	14.018	11.957	12.000
C500FM-1618-17	16.0	18.0	24.0	17.0	1.0	16.016	16.086	18.000	18.018	15.957	16.000
C500FM-2023-21	20.0	23.0	30.0	21.5	1.5	20.020	20.104	23.000	23.021	20.948	21.000



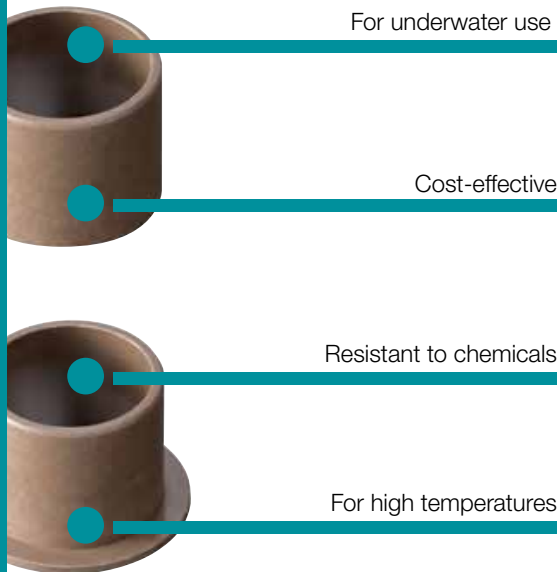
iglide® H2

- Can be used underwater
- Cost-effective
- Resistant to chemicals
- For high temperatures

iglide®
H2

iglide® H2 - Low-cost

For high temperatures



For applications with high temperature requirements. Can be conditionally used in dry operation; excellent properties with additional lubrication.



- For underwater use
- When a cost-effective bearing for high temperatures is desired
- For applications with fuels, oils, etc.
- When resistance to chemicals is needed



- When the highest wear resistance is required
 - iglide® H1
 - iglide® H4
 - iglide® L280
- When vibration dampening is necessary
 - iglide® M250
 - iglide® J
- When neither increased temperatures nor media contact occur
 - iglide® G300



Available from stock

Detailed information about delivery time online.



max. +392°F
min. -40°F



Order dependent



Contact igus®
Sizes available upon request



Typical application areas

- Automotive industry
- Actuator
- Bicycle industry

iglide® H2 - Technical Data

 iglide®
H2

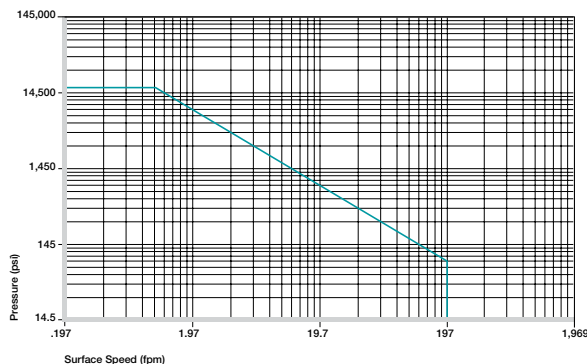
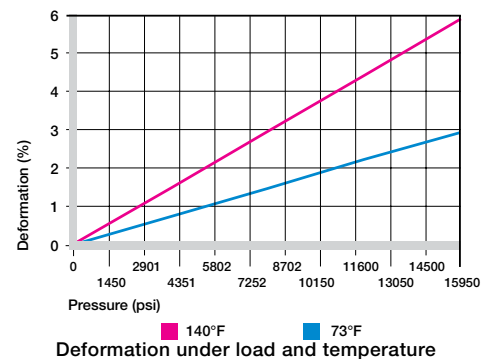
Material Properties Table

General Properties	Unit	iglide® H2	Testing Method
Density	g/cm ³	1.72	
Color		brown	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.1	DIN 53495
Max. moisture absorption	% weight	0.2	
Coefficient of friction, dynamic against steel	μ	0.07 - 0.30	
pv value, max. (dry)	psi x fpm	16,500	
Mechanical Properties			
Modulus of elasticity	psi	1,494,000	DIN 53457
Tensile strength at 68°F	psi	30,460	DIN 53452
Compressive strength	psi	15,810	
Permissible static surface pressure (68°F)	psi	15,950	
Shore D-hardness		88	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	392	
Max. application temperature, short-term	°F	464	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	4	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	< 10 ¹⁵	DIN IEC 93
Surface resistance	Ω	< 10 ¹⁴	DIN 53482

Compressive Strength

The graph shows the elastic deformation of iglide® H2 for radial loads. At the permissible static surface pressure of 15,950 psi, the deformation is below 3% at room temperature. The values for tensile and compressive strength are higher than those of iglide® H at room temperature.

► Compressive strength, Page 63



Permissible pv value for iglide® H2 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

In the development of iglide® H2 cost considerations and mechanical resistance were the main issues. The permissible surface speeds of these bearings are rather low, which limits the use to primarily slow movements or intermittent operations.

- Surface speed, Page 64
- pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	177	196
Oscillating	118	137
Linear	492	590

Maximum surface speeds

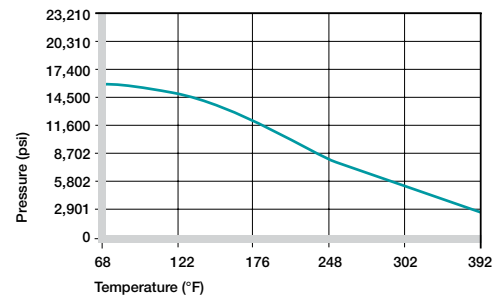
iglide®
H2

iglide® H2 - Technical Data

Temperatures

iglide® H2 is a material with an extremely high resistance to temperature. The maximum permissible short-term temperature of 464°F. iglide® H2 plain bearings may be used in heat treated applications at low loads. With increasing temperatures, the compressive strength of iglide® H2 plain bearings decreases at a greater rate than that of iglide® H. The graph to the right shows this relationship.

► Application temperatures, Page 67



Recommended permissible maximum static surface pressure of iglide® H2 as a result of the temperature

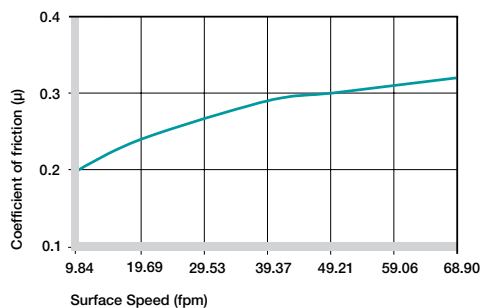
iglide® H2	Application Temperature
Minimum	- 40°F
Max. long-term	+392°F
Max. short-term	+464°F
Additional axial securing	+230°F

Temperature limits for iglide® H2

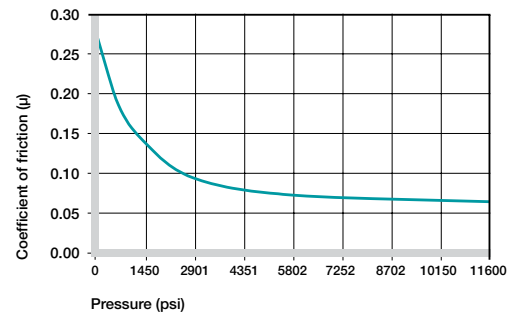
Friction and Wear

The coefficients of friction of iglide® H2 plain bearings change with different surface speeds, loads and roughness, as indicated in the graphs below.

- Coefficients of friction and surfaces, Page 68
- Wear resistance, Page 69



Coefficients of friction for iglide® H2 as a result of the surface speed; p = 108 psi



Coefficients of friction for iglide® H2 as a result of the load, v = 1.97 fpm

iglide® H2	Coefficient of Friction
Dry	0.07 - 0.30
Grease	0.09
Oil	0.04
Water	0.04

Coefficients of friction for iglide® H2 against steel (Shaft finish = 40 rms, 50 HRC)

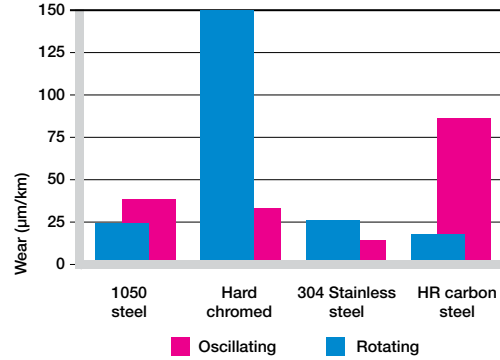
iglide® H2 - Technical Data

iglide®
H2

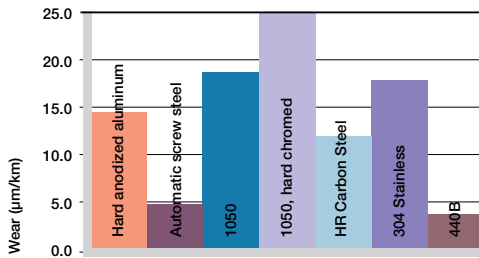
Shaft Materials

When studying the wear resistance of iglide® H2, it must be repeated that these bearings have been developed for high static temperature resistance. The wear resistance does not compare with the values of iglide® H370 for any bearing/shaft combination. iglide® H2 bearings should not be combined with hard chromed shafts. Shafts made from 1050 hardened and ground steel and 303 stainless are significantly better, as shown in the graphs. If you wish to use shaft materials that are not listed please contact us. The results for other shaft/bearing combinations are often available.

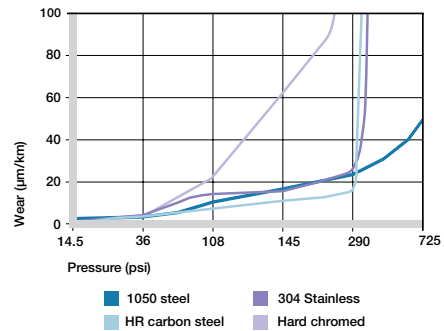
► Shaft Materials, Page 71



Wear for oscillating and rotating applications with different shaft materials; p = 290 psi



Wear of iglide® H2, rotating application with different shaft materials, p = 108 psi, v = 98 fpm

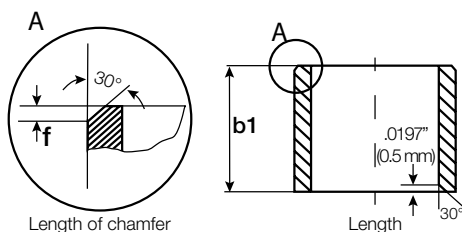


Wear of iglide® H2 with different shaft materials in rotating applications

Installation Tolerances

iglide® H2 plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
> 10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
> 18 to 30	-0 /-330	
> 30 to 50	-0 /-390	
> 50 to 80	-0 /-460	

iglide® H2 - Technical Data

Chemical Resistance

iglide® H2 bearings have a good resistance against chemicals. They are resistant to most lubricants.

The iglide® H2 is not affected by most weak organic and inorganic acids.

► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	+ to 0
Strong acids	+ to –
Weak alkaline	+
Strong alkaline	+

+ resistant, 0 conditionally resistant, – not resistant

Chemical resistance of iglide® H2

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364

Radiation Resistance

iglide® H2 plain bearings withstands neutron and gamma particle radiation without detectable losses of its excellent mechanical properties. Plain bearings made of iglide® H2 are resistant to radiation up to an intensity of 2×10^2 Gy.

UV Resistance

iglide® H2 plain bearings change under the influence of UV radiation and other weathering effects. The surface becomes rougher and the compressive strength decreases. The use of iglide® H2 in applications that are permanently exposed to weathering should be tested.

Vacuum

In a vacuum environment, small moisture components are released as vapor. It is possible to use iglide® H2 in a vacuum.

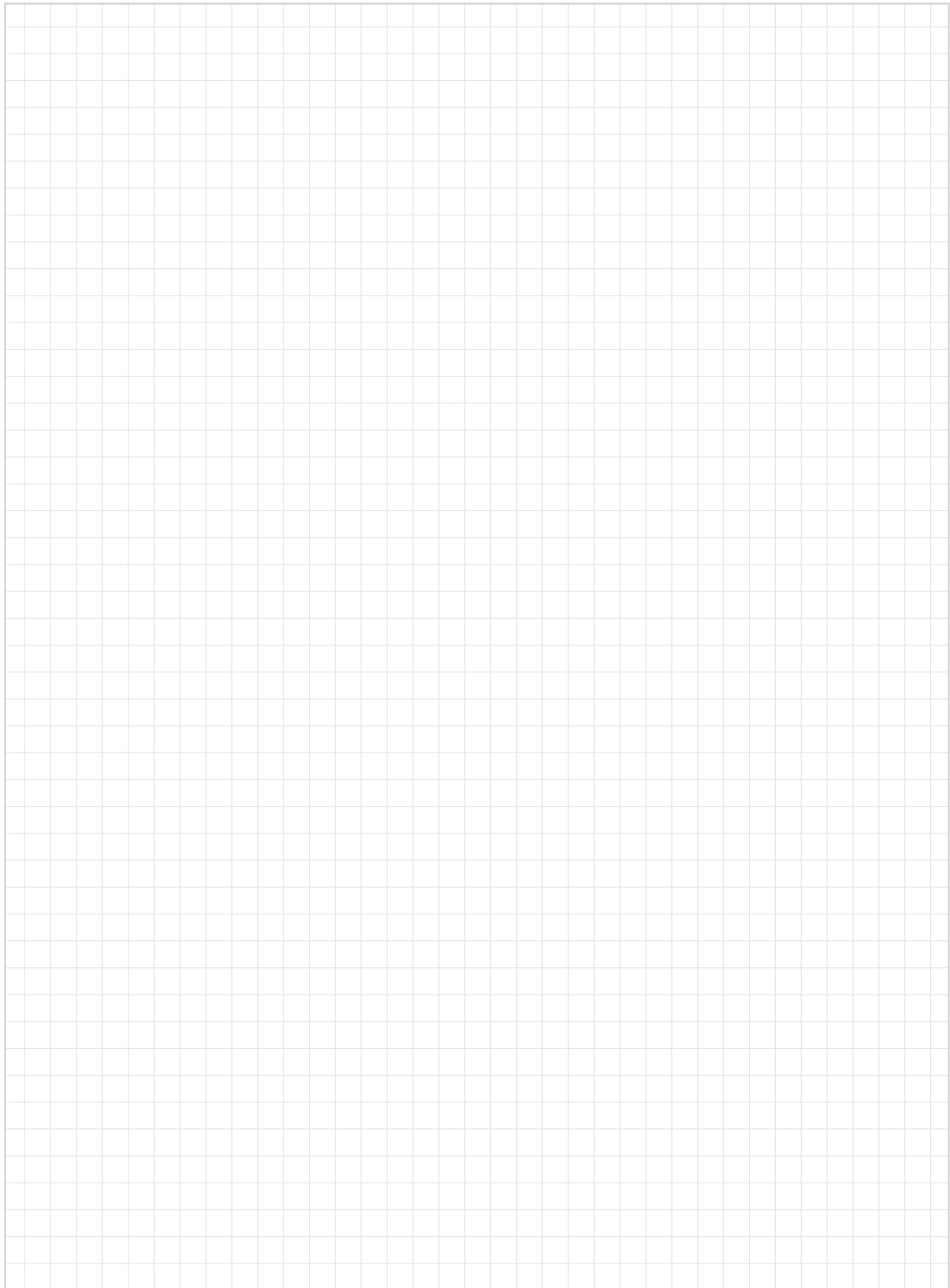
Electrical Properties

Unlike iglide® H and H370 plain bearings, iglide® H2 are electrically insulating.

iglide® H2	
Specific volume resistance	> 10^{15} Ωcm
Surface resistance	> 10^{14} Ω

Electrical properties of iglide® H2

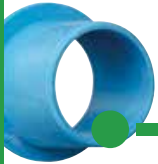
Notes



iglide® Specialists - Advantages



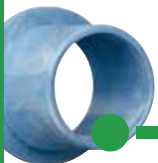
FDA-compliant general
purpose material –
iglide® A180
► Page 423



The food grade material, compliant
with FDA specifications and EC
Directive 10/2011 EC – **iglide® A181**
► Page 431



FDA-compliant, for low speeds –
iglide® A200
► Page 441



Temperature and wear-resistant,
FDA-compliant –
iglide® A350
► Page 447



Temperature and chemical
resistance, FDA-compliant –
iglide® A500
► Page 459



Chemicals & food, compliant with EC Directive
10/2011 EC –
iglide® A160
► Page 471



Robust –
iglide® A290
► Page 479



KTW-compliant –
iglide® UW160
► Page 485



For the tobacco industry,
FDA-compliant –
iglide® T220
► Page 493


Contact with food

iglide® bearings perform well without external lubrication,
including in environments where high levels of hygiene are
required.

The specialists group of bearing materials is made up of
FDA-compliant materials for a wide range of operating
conditions including temperature and moisture variants,
including iglide® T220, which is even suitable for the
tobacco industry.

- Self-lubricating and maintenance-free
- Lightweight
- Good price/performance ratio
- Predictable service life


 **Online product finder**
► www.igus.com/iglide-finder

 max. +482 °F
min. -148 °F

 **9 materials**



 **Ø 1/8 to 1-3/4 inches**
more dimensions on request

 **Ø 3 to 50 mm**
more dimensions on request

iglide® Specialists - Application Examples

Contact with food



iglide® bearings proved ideal, as they are cost effective and need no external lubrication.



Self-lubricating plastic plain bearings and igubal® spherical bearings maximize application service life, and eliminate downtime when paired with stainless steel.



Complete freedom from maintenance in extremely dirty applications distinguishes iglide® bearings from the competition.



FDA-compliant iglide® A500 bearings are resilient in high-temperature applications, including in cooking oil up to 428°F.



In this meat slicer application that makes direct food contact, bearings which require external lubrication cannot be used.



Components in this brewery equipment must satisfy a variety of requirements, including temperature resistance.

iglide® Bearings - Selection Guide - Main Properties

Contact with food



Standard
catalog
range



Bar
stock



speedigus®
material



Long life
in dry
operation



For high
loads



Dirt
resistant



Low
coefficient
of friction



Chemical
resistant

	Standard catalog range	Bar stock	speedigus® material	Long life in dry operation	For high loads	Dirt resistant	Low coefficient of friction	Chemical resistant
iglide® A180	●	●	●	●			●	
iglide® A181	●	●		●			●	
iglide® A200	●					●		
iglide® A350	●	●		●			●	●
iglide® A500	●				●			●
iglide® A160	●	●						●
iglide® A290	●				●			
iglide® UW160	●	●						●
iglide® T220		●						



Low water
absorption



For under
water use



Edge
pressure



Vibrations
dampening



Food
suitable



Temperatures
up to
+194°F



Temperatures
up to
+302°F

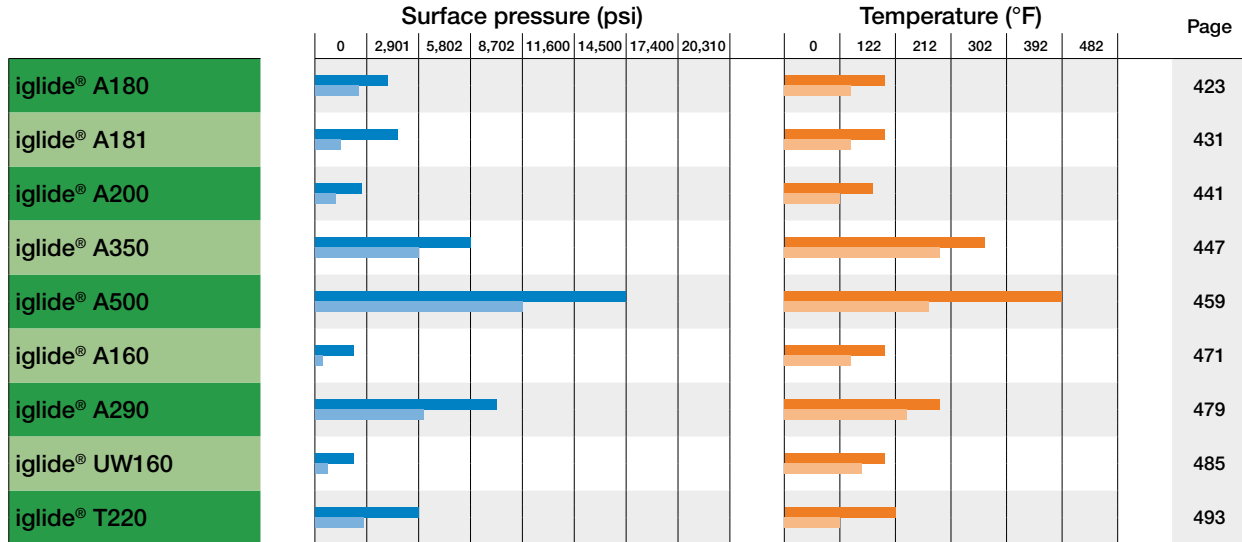


Economic

	Low water absorption	For under water use	Edge pressure	Vibrations dampening	Food suitable	Temperatures up to +194°F	Temperatures up to +302°F	Economic
iglide® A180	●		●		●	●		●
iglide® A181	●		●		●	●		●
iglide® A200			●	●	●			
iglide® A350	●	●	●		●	●	●	
iglide® A500	●	●	●		●	●	●	
iglide® A160	●				●	●		
iglide® A290						●		
iglide® UW160	●	●				●		●
iglide® T220					●	●		

iglide® Bearings - Selection Guide - Main Properties

Contact with food

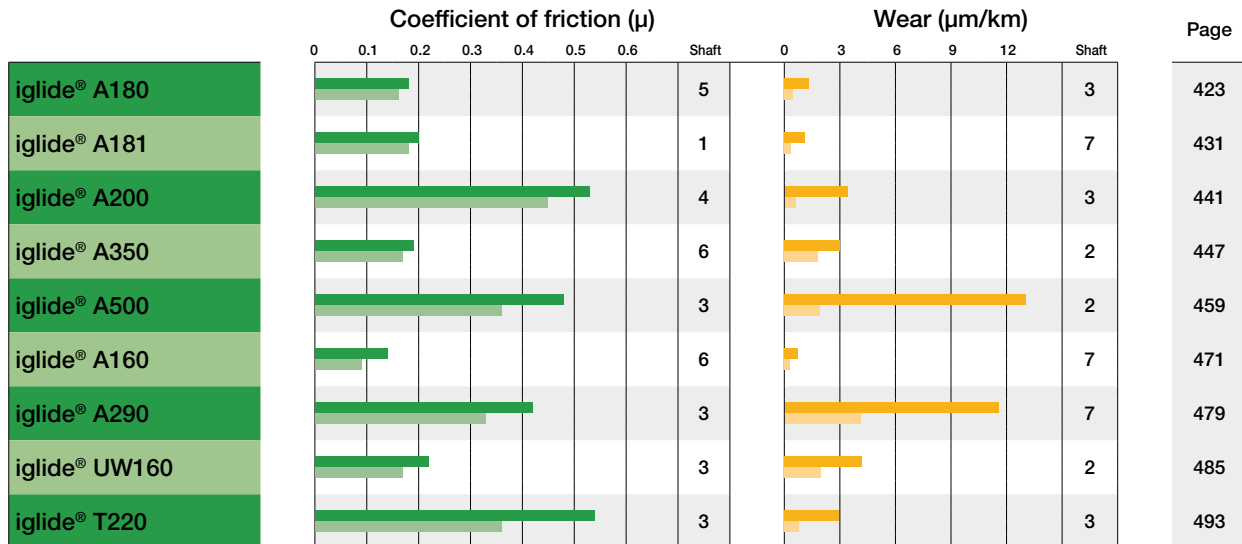


Maximum permissible surface pressure of iglide® bearings at

- +68°F
- +176°F

Important temperature limits of iglide® bearings

- Maximum permissible application temperature, continuous
- Temperature where bearings need to be secured against radial or axial movement in the housing



Coefficients of friction of iglide® bearings against steel rotating, p = 145 psi v = 59 fpm

- Average of all the seven sliding combinations tested
- Coefficient of friction of best combination

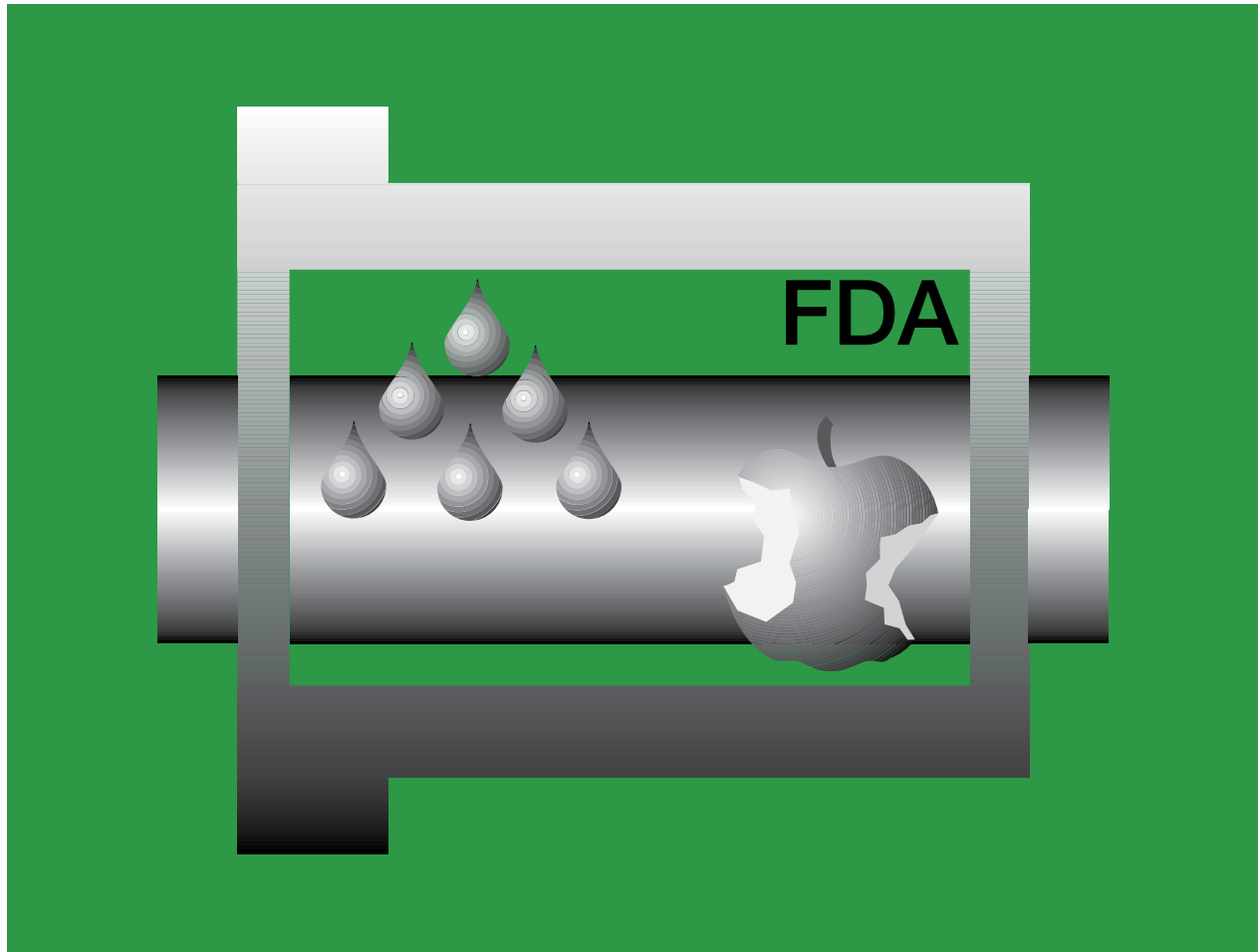
Wear of iglide® bearings against steel rotating, p = 145 psi

- Average of all the seven sliding combinations tested
- Wear of best combination



Shaft material:

1 = 1050, case hardened	4 = Free-cutting steel	7 = 440B Stainless
2 = 1050, case hardened steel, chromed	5 = Machinery Steel	
3 = Hard anodized aluminum	6 = 304 Stainless	



iglide® A180

- FDA compliant for repeated contact with food
- Good media resistance
- For wet environments
- Good wear resistance

iglide®
A180

iglide® A180 - FDA general purpose

FDA compliant general purpose material

Complies with FDA regulations for repeated contact with food

Good media resistance

For wet environments

High wear resistance

FDA compliant material for applications with low to medium loads in environments (or contact) with food or drugs as well as humidity.



- When your bearing comes in direct contact with food or pharmaceuticals
- If FDA-compliance is required
- When quiet operation is important
- If low water absorption is needed



- When the maximum abrasion resistance is necessary
 - iglide® J
- When temperatures are continuously greater than 194°F
 - iglide® A350
 - iglide® A500
- When a cost-effective universal bearing is desired
 - iglide® G300
 - iglide® P



iglide® A180 material complies with EC Directive 10/2011 EC and also with FDA (Food and Drug Administration) specifications for repeated contact with food.



Available from stock

Detailed information about delivery time online.



max. +194°F
min. -58°F



Price breaks online

No minimum order.



Ø 6 to 30 mm
more dimensions on request



Typical application areas

- Food industry
- Beverage technology
- Medical etc.

iglide® A180 - Technical Data

iglide®
A180

Material Properties Table

General Properties	Unit	iglide® A180	Testing Method
Density	g/cm ³	1.46	
Color		white	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.2	DIN 53495
Max. moisture absorption	% weight	1.3	
Coefficient of friction, dynamic against steel	μ	0.05 - 0.23	
pv value, max. (dry)	psi x fpm	8,750	

Mechanical Properties	Unit	iglide® A180	Testing Method
Modulus of elasticity	psi	333,600	DIN 53457
Tensile strength at 68°F	psi	12,760	DIN 53452
Compressive strength	psi	11,310	
Permissible static surface pressure (68°F)	psi	4,060	
Shore D-hardness		76	DIN 53505

Physical and Thermal Properties	Unit	iglide® A180	Testing Method
Max. long-term application temperature	°F	194	
Max. application temperature, short-term	°F	230	
Min. application temperature	°F	-58	
Thermal conductivity	W/m x K	0.25	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	11	DIN 53752

Electrical Properties	Unit	iglide® A180	Testing Method
Specific volume resistance	Ωcm	> 10 ¹²	DIN IEC 93
Surface resistance	Ω	> 10 ¹¹	DIN 53482

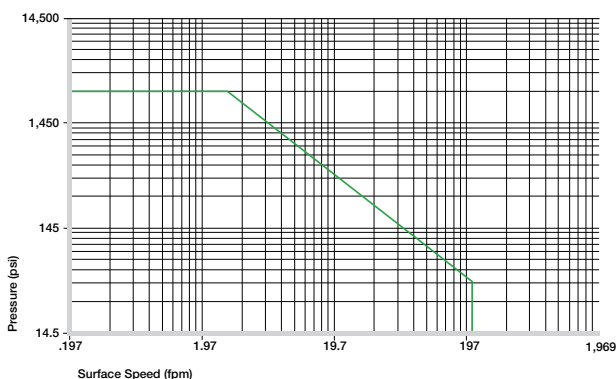
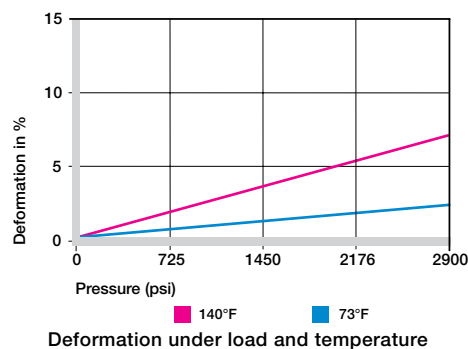
Compressive Strength

Bearings made of iglide® A180 are suitable for applications in direct contact with foods and washdowns.

The graph at the right shows the elastic deformation of iglide® A180 during radial loading. At the recommended maximum surface pressure of 4,060 psi the deformation is less than 3.5 %.

Plastic deformation is minimal up to this radial load. However, it is also a result of the service time.

► Compressive strength, Page 63



Permissible pv values for iglide® A180 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® A180 is developed for low surface speeds. Maximum speeds up to 157 fpm (rotating) and 689 fpm (linear) are permitted for continuous application in dry operation.

These given values indicate the limits at which an increase up to the continuous permissible temperature occurs. In practice these limit values are not always reached due to outside factors.

- Surface speed, Page 64
- pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	157	236
Oscillating	118	197
Linear	689	984

Maximum surface speeds

iglide®
A180

iglide® A180 - Technical Data

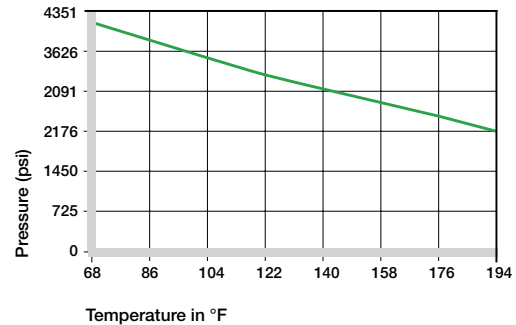
Temperatures

The short-term permitted maximum temperature is +230 °F. With increasing temperatures, the compressive strength of iglide® A180 bearings decreases. The graph at the right shows this relationship. The temperatures prevalent in the bearing system also have an effect on the bearing wear.

► Application temperatures, Page 67

iglide® A180	Application Temperature
Minimum	-58°F
Max. long-term	+194°F
Max. short-term	+230°F
Additional axial securing	+140°F

Temperature iglide® A180



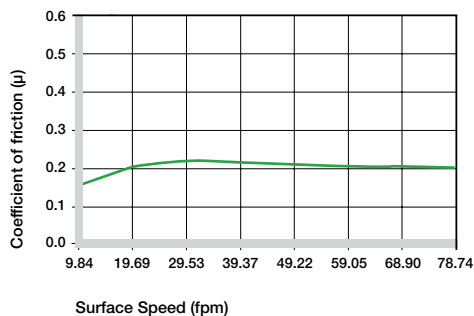
Recommended maximum permissible static surface pressure of iglide® A180 as a result of the temperature

Friction and Wear

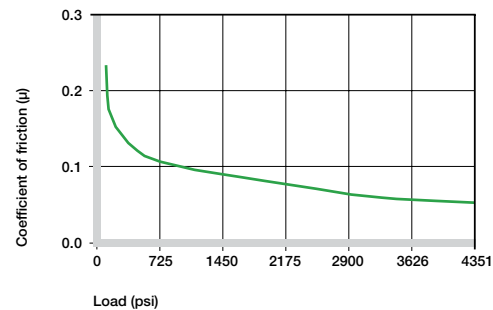
Coefficient of friction and wear resistance alter with the application parameters. With increasing load, the coefficient of friction however decreases markedly. For iglide® A180 a ground surface with an average roughness of 16-24 rms is recommended for the shaft.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® A180 as a function of the running speed; p = 108 psi



Coefficients of friction of iglide® A180 as a function of the load, v = 1.96 fpm

iglide® A180	Coefficient of Friction
Dry	0.05 - 0.23
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® A180 against steel (Shaft finish = 40 rms, 50 HRC)

iglide® A180 - Technical Data

iglide®
A180

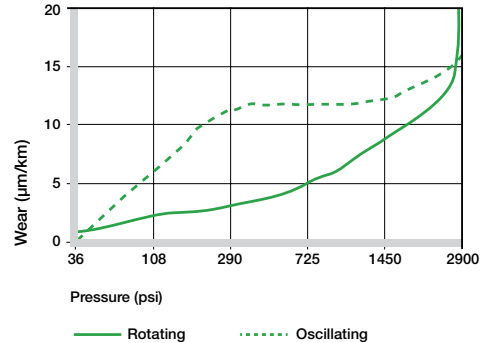
Shaft Materials

The graphs show the test results of iglide® A180 bearings running against various shaft materials.

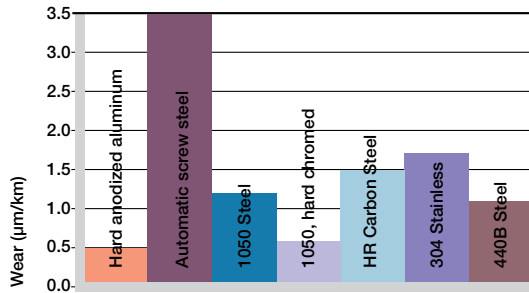
The combination of iglide® A180 and hard-anodized aluminum clearly stands out. It attains good to excellent wear rates also with other shafts.

With Hard chromed shafts, the higher wear in pivoting applications is exemplary compared to rotating applications. The graph to the right clearly shows, in the example of the 304 stainless shafts, the direct increase in wear with rising load with "soft" shafts. The increase is hardly noticeable with hard shafts.

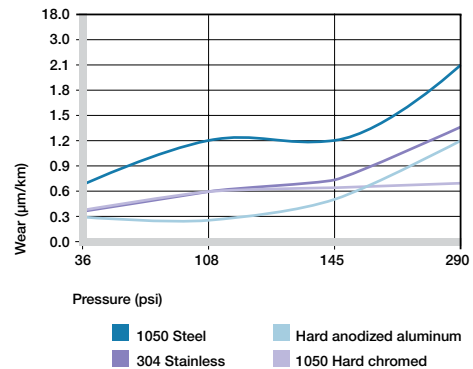
► Shaft Materials, Page 71



Wear of iglide® A180 with different shaft materials in rotational applications



Wear of iglide® A180, rotating applications with different shaft materials, p = 145 psi, v = 59 fpm

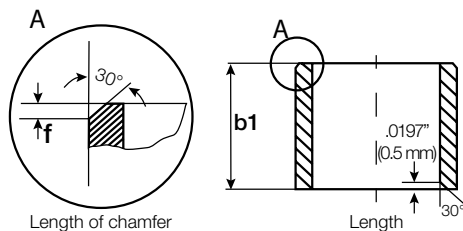


Wear with different shaft materials, oscillating and rotating movement p = 290 psi

Installation Tolerances

iglide® A180 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance & Moisture Absorption

iglide® A180 bearings can be used under various environmental conditions and in contact with numerous chemicals. The table gives an overview of the chemical resistance of iglide® A180 bearings at room temperature.

► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon, chlorinated	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to –
Strong acids	–
Weak alkaline	+
Strong alkaline	+ to 0

+ resistant, 0 conditionally resistant, – not resistant

Chemical resistance of iglide® A180

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® A180 plain bearings

Radiation Resistance

Plain bearings made of iglide® A180 are resistant to radiation up to an intensity of $3 \cdot 10^2$ Gy. Higher radiation levels attack the material and can cause the loss of essential mechanical properties.

UV-Resistance

iglide® A180 bearings are resistant to UV radiation, but the tribological properties deteriorate with continuous exposure.

Vacuum

When used in a vacuum environment, the iglide® A180 plain bearings release moisture as a vapor. Therefore, only dehumidified bearings are suitable in a vacuum environment.

Electrical Properties

iglide® A180 plain bearings are electrically insulating.

iglide® A180

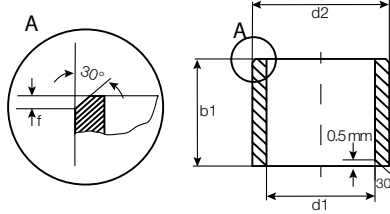
Specific volume resistance	> 10^{12} Ωcm
Surface resistance	> 10^{11} Ω

Electrical properties of iglide® A180

iglide® A180 - Product Range

Sleeve bearing - Metric

iglide®
A180



Order key

Type	Dimensions
A180 S M	-06 08-06

iglide® material

Form S (sleeve)

Metric

Inner-Ø d1 (mm)

Outer-Ø d2 (mm)

Length b1 (mm)

For tolerance values
please refer to page 427

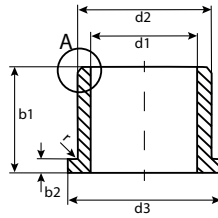
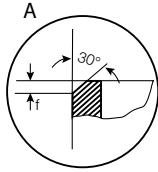
Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
A180SM-0608-10	6.0	8.0	10.0	6.020	6.068	8.000	8.015	5.970	6.000
A180SM-0810-10	8.0	10.0	10.0	8.025	8.083	10.000	10.015	7.964	8.000
A180SM-1012-10	10.0	12.0	10.0	10.025	10.083	12.000	12.018	9.964	10.000
A180SM-1214-15	12.0	14.0	15.0	12.032	12.102	14.000	14.018	11.957	12.000
A180SM-1618-15	16.0	18.0	15.0	16.032	16.102	18.000	18.018	15.957	16.000
A180SM-2023-20	20.0	23.0	20.0	20.040	20.124	23.000	23.021	19.948	20.000
A180SM-2528-30	25.0	28.0	20.0	25.040	25.124	28.000	28.021	24.948	25.000
A180SM-3034-20	30.0	34.0	20.0	30.040	30.124	34.000	34.025	29.948	30.000

iglide®
A180

iglide® A180 - Product Range

Flange bearing - Metric



Order key

Type	Dimensions
A180 F M	-06 08-06

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
------------------	-----------------	--------	-----------------	-----------------	----------------

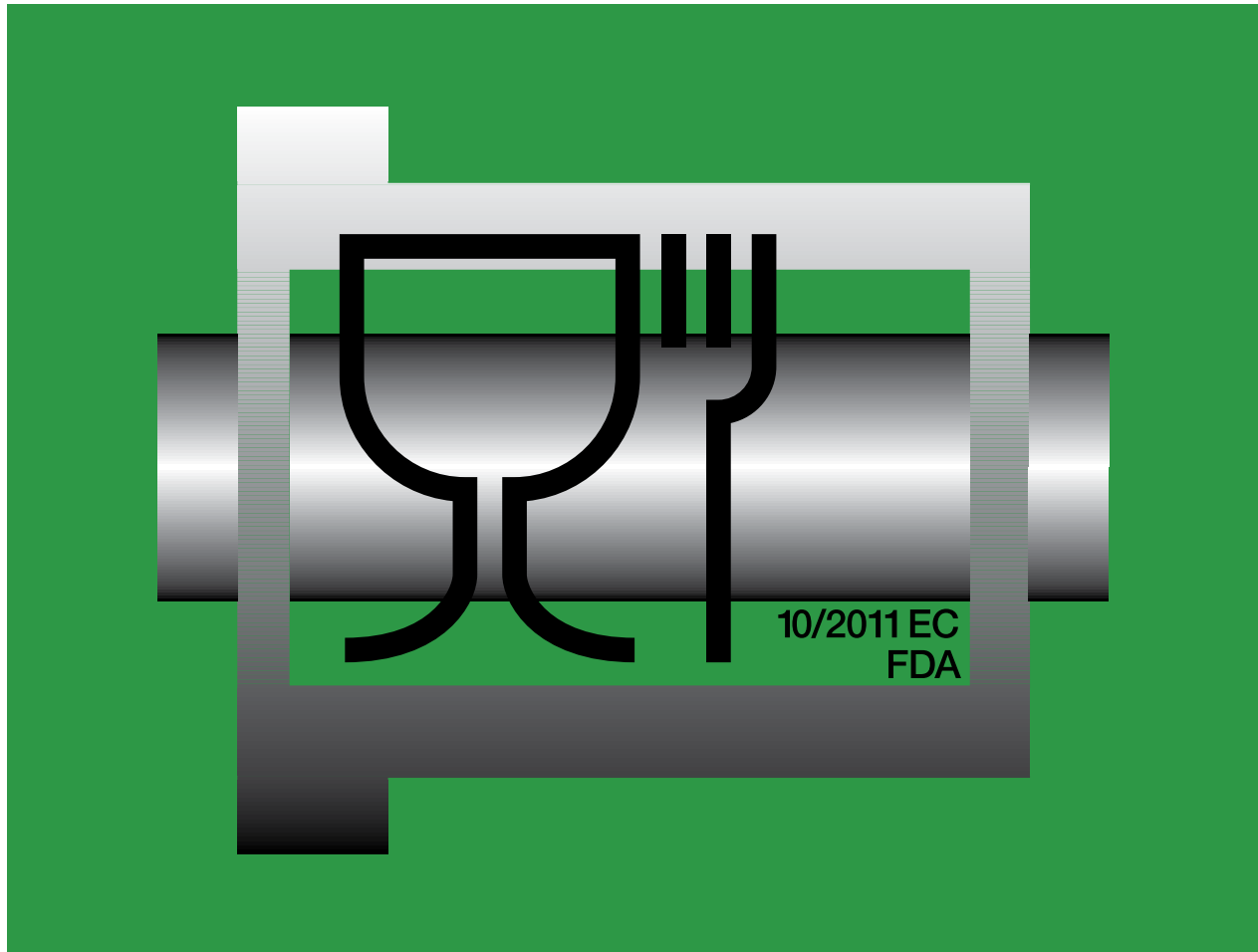
$r = \max. 0.5$

For tolerance values
please refer to page 427

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
A180FM-0608-06	6.0	8.0	12.0	6.0	1.0	6.020	6.068	8.000	8.012	5.970	6.000
A180FM-0810-10	8.0	10.0	15.0	10.0	1.0	8.025	8.083	10.000	10.015	7.964	8.000
A180FM-1012-10	10.0	12.0	18.0	10.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
A180FM-1214-15	12.0	14.0	20.0	15.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
A180FM-1618-17	16.0	18.0	24.0	17.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
A180FM-2023-21	20.0	23.0	30.0	21.5	1.5	20.040	20.124	23.000	23.021	19.948	20.000
A180FM-2528-21	25.0	28.0	35.0	21.5	1.5	25.040	25.124	28.000	28.021	24.948	25.000
A180FM-3034-26	30.0	34.0	42.0	26.0	2.0	30.040	30.124	34.000	34.025	29.948	30.000



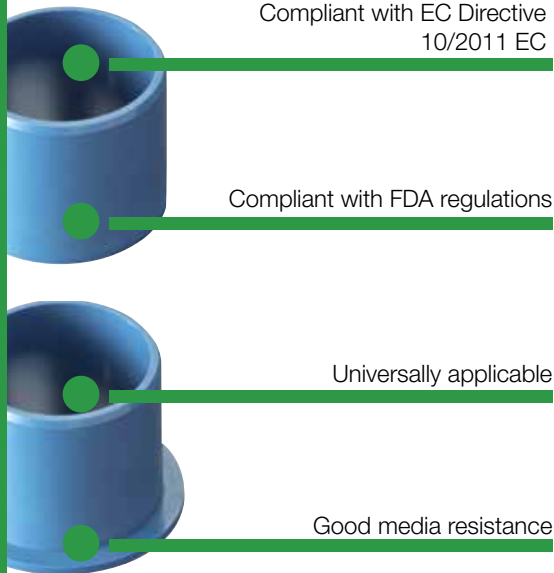
iglide® A181

- Compliant with EC Directive 10/2011 EC
- FDA compliant
- Universally applicable
- Good media resistance
- Wear resistant

iglide®
A181

iglide® A181 - FDA and EC Directive compliant

Food grade material



Bearings made of iglide® A181 are suitable for application in direct contact with food. Therefore, they are the ideal solution for bearing applications on machines for the food and packaging industries, medical equipment manufacturing, and for small equipment for households, etc. The blue color also facilitates the often required "optical detectability" in the food industry.



- If FDA compliance is required
- When 10/2011 EC Directive compliance is required
- When a material suitable for direct contact with food or pharmaceuticals is required



- When FDA compliance or 10/2011 EC Directive is not needed
 - iglide® J
- When temperatures are continuously greater than 194°F
 - iglide® A350
- When a cost-effective universal bearing is desired
 - iglide® G300
 - iglide® P



iglide® A181 material complies with EC Directive 10/2011 EC and also with FDA (Food and Drug Administration) specifications for repeated contact with food.



Available from stock

Detailed information about delivery time online.



max. +194°F
min. -58°F



Price breaks online

No minimum order.



Ø 6 to 20 mm
more dimensions on request



Typical application areas

- Food industry
- Beverage technology
- Medical etc.

iglide® A181 - Technical Data

 iglide®
A181

Material Properties Table

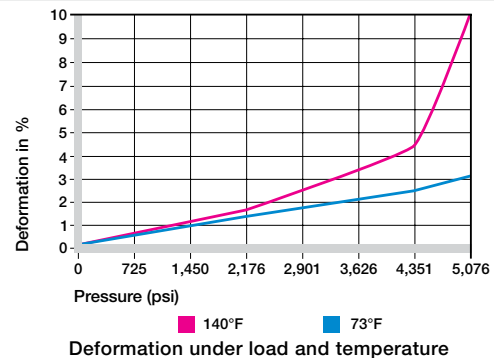
General Properties	Unit	iglide® A181	Testing Method
Density	g/cm ³	1.38	
Color		blue	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.2	DIN 53495
Max. moisture absorption	% weight	1.3	
Coefficient of friction, dynamic against steel	μ	0.10 - 0.21	
pv value, max. (dry)	psi x fpm	8,750	
Mechanical Properties			
Modulus of elasticity	psi	277,500	DIN 53457
Tensile strength at 68°F	psi	6,962	DIN 53452
Compressive strength	psi	8,702	
Permissible static surface pressure (68°F)	psi	4,496	
Shore D-hardness		76	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	194	
Max. application temperature, short-term	°F	230	
Min. application temperature	°F	-58	
Thermal conductivity	W/m x K	0.25	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	11	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	< 10 ¹²	DIN IEC 93
Surface resistance	Ω	< 10 ¹²	DIN 53482

Compressive Strength

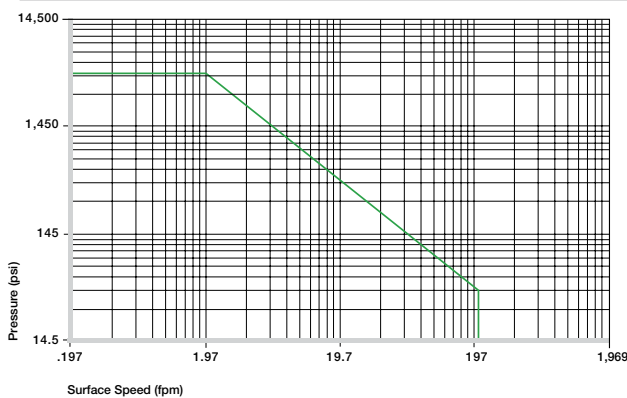
With increasing temperatures, the compressive strength of iglide® A181 plain bearings decreases. The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this.

The graph at the right shows the elastic deformation of iglide® A181 during radial loading. At the recommended maximum surface pressure of 4,496 psi the deformation is less than 3%.

Plastic deformation is minimal up to this radial load. However, it is also a result of the service time.



► Compressive strength, Page 63



Permissible pv values for iglide® A181 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® A181 is developed for low surface speeds. Maximum speeds up to 158 fpm (rotating) and 689 fpm (linear) respectively are permitted for continuous use in dry operation.

These given values indicate the limits at which an increase up to the continuous permissible temperature occurs. In practice these limit values are not always reached due to interactions.

- Surface speed, Page 64
- pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	158	236
Oscillating	118	197
Linear	689	984

Maximum surface speeds

iglide®
A181

iglide® A181 - Technical Data

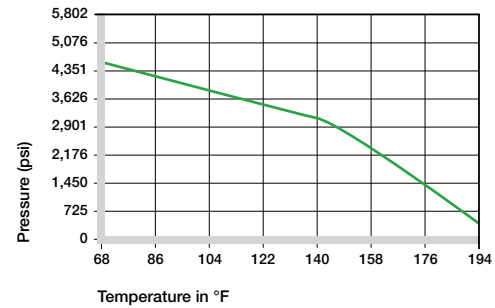
Temperatures

The long-term upper temperature limit of +194°F permits the broad use in applications with direct contact with food. As shown, in the graph on the right, with increasing temperatures, the compressive strength decreases. When considering temperatures, the additional frictional heat in the bearing system must be taken into account.

► Application temperatures, Page 67

iglide® A181	Application Temperature
Minimum	-58°F
Max. long-term	+194°F
Max. short-term	+230°F
Additional axial securing	+140°F

Table 12.3: Temperature iglide® A181



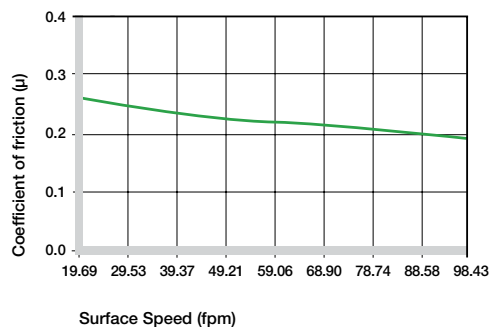
Recommended maximum permissible static surface pressure of iglide® A181 as a result of the temperature

Friction and Wear

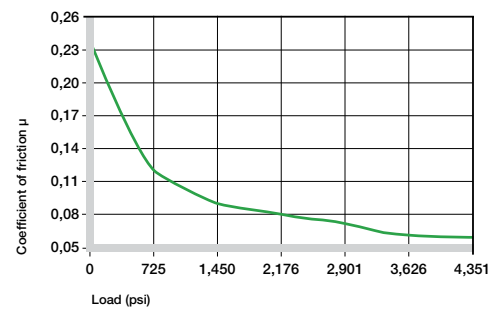
Coefficient of friction and wear resistance alter with specific application parameters. For iglide® A181, the coefficient of friction μ is dependent on the surface speed of the shaft along with the shaft surface finish although generally speaking the effect is negligible as the table below represents. The coefficient of friction increases quickly with any load under 725 psi. As the load increases the coefficient of friction reduces drastically. For iglide® A181, a ground surface with an average between 8-64 rms is recommended giving the user a wide rage to work with.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® A181 as a function of the running speed; p = 108 psi



Coefficients of friction of iglide® A181 as a function of the load, v = 1.97 fpm

iglide® A181	Coefficient of Friction
Dry	0.05 - 0.23
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® A181 against steel (Shaft finish = 40 rms, 50 HRC)

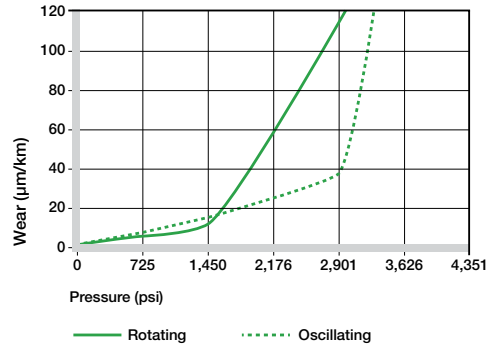
iglide® A181 - Technical Data

iglide®
A181

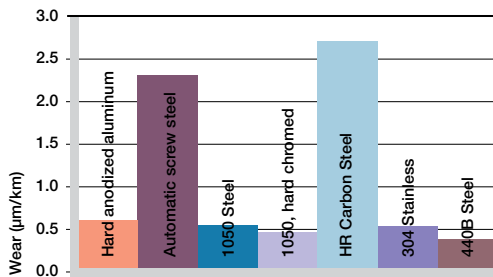
Shaft Materials

The graphs show the test results of iglide® A181 bearings running against various shaft materials. Particular attention is paid in the food industry to the corrosion-resistant shafts. The chart below shows that very low wear rates can be achieved in combination with these shafts. As with many of the iglide® materials, wear rate increases with otherwise identical parameters in rotation.

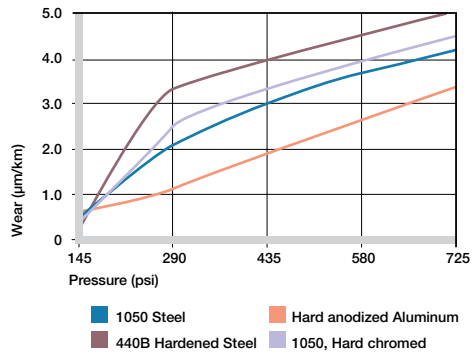
► Shaft Materials, Page 71



Wear of iglide® A181 with different shaft materials in rotational applications



Wear of iglide® A181, rotating applications with different shaft materials, p = 145 psi, v = 59 fpm

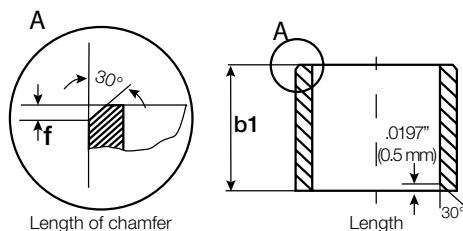


Wear with different shaft materials, oscillating and rotating movement p = 290 psi

Installation Tolerances

iglide® A181 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 / -0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 / -0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 / -0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 / -0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 / -0.0154	
1.9685 to 3.1496	-0.0000 / -0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 / -140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 / -180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 / -220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 / -270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 / -330	
>30 to 50	-0 / -390	
>50 to 80	-0 / -460	

Chemical & Moisture Resistance

iglide® A181 bearings can be used under various environmental conditions and in contact with numerous chemicals. The table gives an overview of the chemical resistance of iglide® A181 bearings at room temperature.

The moisture absorption of iglide® A181 bearings is approximately 0.2% in standard atmosphere. The saturation limit submerged in water is 1.3%. This must be taken into account for these types of applications.

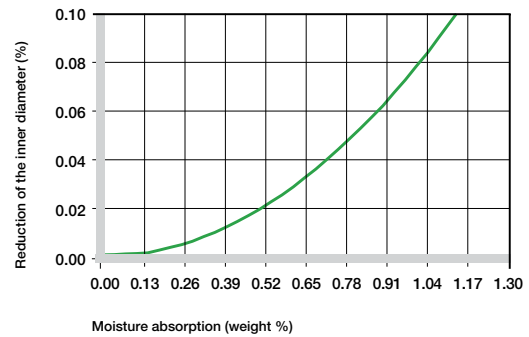
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon, chlorinated	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to –
Strong acids	–
Weak alkaline	+
Strong alkaline	+ to 0

+ resistant, 0 conditionally resistant, – not resistant

Chemical resistance of iglide® A181

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® A181 plain bearings

Radiation Resistance

Plain bearings made of iglide® A181 are resistant to radiation up to an intensity of $2 \cdot 10^2$ Gy.

UV-Resistance

iglide® A181 bearings are only conditionally resistant to UV radiation.

Vacuum

When used in a vacuum environment, the iglide® A181 bearings release moisture as a vapor. Therefore, only dehumidified bearings are suitable in a vacuum environment.

Electrical Properties

iglide® A181 bearings are electrically insulating.

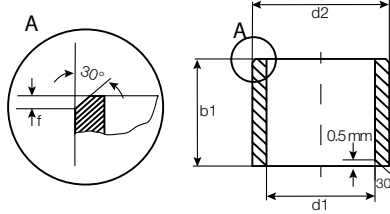
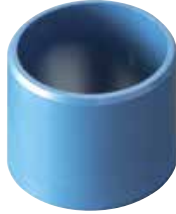
iglide® A181

Specific volume resistance	> 10^{12} Ωcm
Surface resistance	> 10^{12} Ω

Electrical properties of iglide® A181

iglide® A181 - Product Range

Sleeve bearing - Metric

 iglide®
A181

Order key

Type	Dimensions
A181 S M	-04 05-04

iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
------------------	-----------------	--------	-----------------	-----------------	----------------

 For tolerance values
please refer to page 435

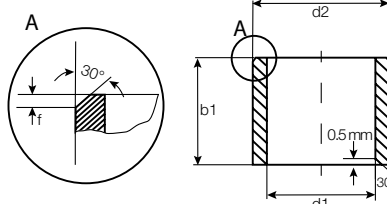
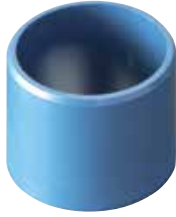
 Dimensions according to ISO 3547-1 and special dimensions
 *Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				h13	Min.	Max.	Min.	Max.	Min.
A181SM-0405-04	4.0	5.0	4.0	4.020	4.068	4.000	4.012	3.970	4.000
A181SM-0405-06	4.0	5.0	6.0			5.000	5.012	3.970	4.000
A181SM-0507-05	5.0	7.0	5.0	5.020	5.068	7.000	7.015	4.970	5.000
A181SM-0507-10	5.0	7.0	10.0			7.000	7.015	4.970	5.000
A181SM-0608-06	6.0	8.0	6.0	6.020	6.068	8.000	8.015	5.970	6.000
A181SM-0608-08	6.0	8.0	8.0			8.000	8.015	5.970	6.000
A181SM-0608-10	6.0	8.0	10.0			8.000	8.015	5.970	6.000
A181SM-0810-08	8.0	10.0	8.0	8.025	8.083	10.000	10.015	7.964	8.000
A181SM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
A181SM-0810-12	8.0	10.0	12.0			10.000	10.015	7.964	8.000
A181SM-1012-08	10.0	12.0	8.0	10.025	10.083	12.000	12.018	9.964	10.000
A181SM-1012-10	10.0	12.0	10.0			12.000	12.018	9.964	10.000
A181SM-1012-12	10.0	12.0	12.0			12.000	12.018	9.964	10.000
A181SM-1012-15	10.0	12.0	15.0			12.000	12.018	9.964	10.000
A181SM-1012-20	10.0	12.0	20.0			12.000	12.018	9.964	10.000
A181SM-1214-10	12.0	14.0	10.0	12.032	12.102	14.000	14.018	11.957	12.000
A181SM-1214-12	12.0	14.0	12.0			14.000	14.018	11.957	12.000
A181SM-1214-15	12.0	14.0	15.0			14.000	14.018	11.957	12.000
A181SM-1214-20	12.0	14.0	20.0			14.000	14.018	11.957	12.000
A181SM-1315-10	13.0	15.0	10.0	14.032	14.102	15.000	15.018	12.957	13.000
A181SM-1315-20	13.0	15.0	20.0			15.000	15.018	12.957	13.000
A181SM-1416-15	14.0	16.0	15.0	14.032	14.102	16.000	16.018	13.957	14.000
A181SM-1416-20	14.0	16.0	20.0			16.000	16.018	13.957	14.000
A181SM-1416-25	14.0	16.0	25.0			16.000	16.018	13.957	14.000
A181SM-1517-15	15.0	17.0	15.0	15.032	15.102	17.000	17.018	14.957	15.000
A181SM-1517-20	15.0	17.0	20.0			17.000	17.018	14.957	15.000
A181SM-1517-25	15.0	17.0	25.0			17.000	17.018	14.957	15.000
A181SM-1618-15	16.0	18.0	15.0	16.032	16.102	18.000	18.018	15.957	16.000
A181SM-1618-20	16.0	18.0	15.0			18.000	18.018	15.957	16.000
A181SM-1618-25	16.0	18.0	25.0			18.000	18.018	15.957	16.000
A181SM-1820-15	18.0	20.0	15.0	18.032	18.102	20.000	20.021	17.957	18.000
A181SM-1820-20	18.0	20.0	20.0			20.000	20.021	17.957	18.000
A181SM-1820-25	18.0	20.0	25.0			20.000	20.021	17.957	18.000
A181SM-2023-10	20.0	23.0	10.0	20.040	20.124	23.000	23.021	19.948	20.000
A181SM-2023-15	20.0	23.0	15.0			23.000	23.021	19.948	20.000
A181SM-2023-20	20.0	23.0	20.0			23.000	23.021	19.948	20.000
A181SM-2023-25	20.0	23.0	25.0			23.000	23.021	19.948	20.000

iglide®
A181

iglide® A181 - Product Range

Sleeve bearing - Metric


Order key

Type	Dimensions
A181 S M -04 05-04	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
please refer to page 435

Dimensions according to ISO 3547-1 and special dimensions

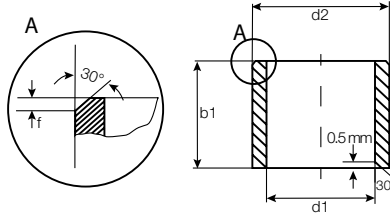
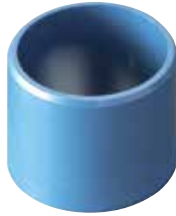
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
A181SM-2023-30	20.0	23.0	30.0	20.040	20.124	23.000	23.021	19.948	20.000
A181SM-2225-15	22.0	25.0	15.0	22.040	22.124	25.000	25.021	21.948	22.000
A181SM-2225-20	22.0	25.0	20.0			25.000	25.021	21.948	22.000
A181SM-2225-25	22.0	25.0	25.0			25.000	25.021	21.948	22.000
A181SM-2225-30	22.0	25.0	30.0			25.000	25.021	21.948	22.000
A181SM-2427-15	24.0	27.0	15.0	24.040	24.124	27.000	27.021	23.948	24.000
A181SM-2427-20	24.0	27.0	20.0			27.000	27.021	23.948	24.000
A181SM-2427-25	24.0	27.0	25.0			27.000	27.021	23.948	24.000
A181SM-2427-30	24.0	27.0	30.0			27.000	27.021	23.948	24.000
A181SM-2428-30	24.0	28.0	30.0	24.040	24.124	28.000	28.021	23.948	24.000
A181SM-2528-15	25.0	28.0	15.0	25.040	25.124	28.000	28.021	24.948	25.000
A181SM-2528-20	25.0	28.0	20.0			28.000	28.021	24.948	25.000
A181SM-2528-25	25.0	28.0	25.0			28.000	28.021	24.948	25.000
A181SM-2528-30	25.0	28.0	30.0			28.000	28.021	24.948	25.000
A181SM-2832-20	28.0	32.0	20.0	28.040	28.124	32.000	32.025	27.948	28.000
A181SM-2832-25	28.0	32.0	25.0			32.000	32.025	27.948	28.000
A181SM-2832-30	28.0	32.0	30.0			32.000	32.025	27.948	28.000
A181SM-3034-20	30.0	34.0	20.0	30.040	30.124	34.000	34.025	29.948	30.000
A181SM-3034-25	30.0	34.0	25.0			34.000	34.025	29.948	30.000
A181SM-3034-30	30.0	34.0	30.0			34.000	34.025	29.948	30.000
A181SM-3034-40	30.0	34.0	40.0			34.000	34.025	29.948	30.000
A181SM-3236-20	32.0	36.0	20.0	32.050	32.150	36.000	36.025	31.938	32.000
A181SM-3236-30	32.0	36.0	30.0			36.000	36.025	31.938	32.000
A181SM-3236-40	32.0	36.0	40.0			36.000	36.025	31.938	32.000
A181SM-3539-20	35.0	39.0	20.0	35.050	35.150	39.000	39.025	34.938	35.000
A181SM-3539-30	35.0	39.0	30.0			39.000	39.025	34.938	35.000
A181SM-3539-40	35.0	39.0	40.0			39.000	39.025	34.938	35.000
A181SM-3539-50	35.0	39.0	50.0			39.000	39.025	34.938	35.000
A181SM-4044-20	40.0	44.0	20.0	40.050	40.150	44.000	44.025	39.938	40.000
A181SM-4044-30	40.0	44.0	30.0			44.000	44.025	39.938	40.000
A181SM-4044-40	40.0	44.0	40.0			44.000	44.025	39.938	40.000
A181SM-4044-50	40.0	44.0	50.0			44.000	44.025	39.938	40.000
A181SM-4550-20	45.0	50.0	20.0	45.050	50.150	50.000	50.025	44.938	45.000
A181SM-4550-30	45.0	50.0	30.0			50.000	50.025	44.938	45.000
A181SM-4550-40	45.0	50.0	40.0			50.000	50.025	44.938	45.000
A181SM-4550-50	45.0	50.0	50.0			50.000	50.025	44.938	45.000
A181SM-5055-20	50.0	55.0	20.0	50.050	50.150	55.000	55.030	49.938	50.000

iglide® A181 - Product Range

Sleeve bearing - Metric

iglide®
A181



Order key

Type	Dimensions
A181 S M	-04 05-04

iglide® material

Form S (sleeve)

Metric

Inner-Ø d1 (mm)

Outer-Ø d2 (mm)

Length b1 (mm)

For tolerance values
please refer to page 435

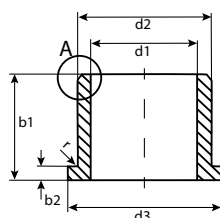
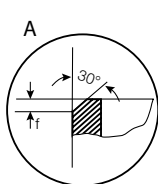
Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
A181SM-5055-30	50.0	55.0	30.0	50.050	50.150	55.000	55.030	49.938	50.000
A181SM-5055-40	50.0	55.0	40.0			55.000	55.030	49.938	50.000
A181SM-5055-50	50.0	55.0	50.0			55.000	55.030	49.938	50.000
A181SM-5055-60	50.0	55.0	60.0			55.000	55.030	49.938	50.000

iglide®
A181

iglide® A181 - Product Range

Flange bearing - Metric



Order key

Type Dimensions

A181 F M -01 03-02

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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$r = \max. 0.5$

For tolerance values please refer to page 435

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
A181FM-0608-04	6.0	8.0	12.0	4.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
A181FM-0608-06	6.0	8.0	12.0	6.0	1.0			8.000	8.015	5.970	6.000
A181FM-0608-08	6.0	8.0	12.0	8.0	1.0			8.000	8.015	5.970	6.000
A181FM-0810-05	8.0	10.0	15.0	5.5	1.0	8.025	8.083	10.000	10.015	7.964	8.000
A181FM-0810-07	8.0	10.0	15.0	7.5	1.0			10.000	10.015	7.964	8.000
A181FM-0810-09	8.0	10.0	15.0	9.5	1.0			10.000	10.015	7.964	8.000
A181FM-0810-10	8.0	10.0	15.0	10.0	1.0			10.000	10.015	7.964	8.000
A181FM-1012-07	10.0	12.0	18.0	7.0	1.0	10.025	10.083	122.000	12.018	9.964	10.000
A181FM-1012-09	10.0	12.0	18.0	9.0	1.0			122.000	12.018	9.964	10.000
A181FM-1012-10	10.0	12.0	18.0	10.0	1.0			12.000	12.018	9.964	10.000
A181FM-1012-12	10.0	12.0	18.0	12.0	1.0			122.000	12.018	9.964	10.000
A181FM-1012-17	10.0	12.0	18.0	17.0	1.0			122.000	12.018	9.964	10.000
A181FM-1214-07	12.0	14.0	20.0	7.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
A181FM-1214-09	12.0	14.0	20.0	9.0	1.0			14.000	14.018	11.957	12.000
A181FM-1214-12	12.0	14.0	20.0	12.0	1.0			14.000	14.018	11.957	12.000
A181FM-1214-17	12.0	14.0	20.0	17.0	1.0			14.000	14.018	11.957	12.000
A181FM-1416-12	14.0	16.0	22.0	12.0	1.0	14.032	14.102	16.000	16.018	13.957	14.000
A181FM-1416-17	14.0	16.0	22.0	17.0	1.0			16.000	16.018	13.957	14.000
A181FM-1517-09	15.0	17.0	23.0	9.0	1.0	14.032	14.102	16.000	16.018	13.957	14.000
A181FM-1517-12	15.0	17.0	23.0	12.0	1.0			16.000	16.018	13.957	14.000
A181FM-1517-17	15.0	17.0	23.0	17.0	1.0			16.000	16.018	13.957	14.000
A181FM-1618-12	16.0	18.0	24.0	12.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
A181FM-1618-17	16.0	18.0	24.0	17.0	1.0			18.000	18.018	15.957	16.000
A181FM-1820-12	18.0	20.0	26.0	12.0	1.0	18.032	18.102	20.000	20.021	17.957	18.000
A181FM-1820-17	18.0	20.0	26.0	17.0	1.0			20.000	20.021	17.957	18.000
A181FM-1820-22	18.0	20.0	26.0	22.0	1.0			20.000	20.021	17.957	18.000
A181FM-2023-11	20.0	23.0	30.0	11.5	1.5	20.040	20.124	23.000	23.021	19.948	20.000
A181FM-2023-16	20.0	23.0	30.0	16.5	1.5			23.000	23.021	19.948	20.000
A181FM-2023-21	20.0	23.0	30.0	21.5	1.5			23.000	23.021	19.948	20.000
A181FM-2528-11	25.0	28.0	35.0	11.5	1.5	25.040	25.124	28.000	28.021	24.948	25.000
A181FM-2528-16	25.0	28.0	35.0	16.5	1.5			28.000	28.021	24.948	25.000
A181FM-2528-21	25.0	28.0	35.0	21.5	1.5			28.000	28.021	24.948	25.000
A181FM-3034-16	30.0	34.0	42.0	16.0	2.0	30.040	30.124	34.000	34.025	29.948	30.000
A181FM-3034-26	30.0	34.0	42.0	26.0	2.0			34.000	34.025	29.948	30.000
A181FM-3539-16	35.0	39.0	47.0	16.0	2.0	35.050	35.150	39.000	39.025	34.938	35.000
A181FM-3539-26	35.0	39.0	47.0	26.0	2.0			39.000	39.025	34.938	35.000
A181FM-4044-30	40.0	44.0	52.0	30.0	2.0	40.050	40.150	44.000	44.025	39.938	40.000
A181FM-4044-40	40.0	44.0	52.0	40.0	2.0			44.000	44.025	39.938	40.000
A181FM-4550-50	45.0	50.0	58.0	50.0	2.5			50.000	50.025	44.938	45.000



iglide® A200

- FDA compliant for direct contact with food
- For low speeds

iglide®
A200

iglide® A200 - FDA compliant

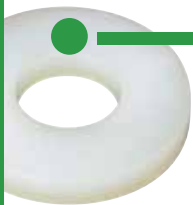
FDA compliant, for low speeds



Complies with FDA regulations



For direct contact with food



For low speeds

FDA compliant material for applications with low to medium loads in immediate environs of (or contact) with food or drugs.



- When your bearing comes in direct contact with food or pharmaceuticals
- For low speeds
- When quiet operation is important
- When dirt needs to become embedded
- If FDA compliance is necessary



- When the maximum abrasion resistance is necessary
 - iglide® L280
- When temperatures are continuously greater than 176°F
 - iglide® A181
 - iglide® A350,
 - iglide® A500
- When a cost-effective universal bearing is desired
 - iglide® G300
- For operations in wet environments
 - iglide® A181



iglide® A200 material with FDA (Food and Drug Administration) specifications for repeated contact with food.



Available from stock

Detailed information about delivery time online.



max. +176°F
min. -40°F



Price breaks online

No minimum order.



Ø 1/8 to 1-3/4 inches
more dimensions on request



Typical application areas

- Food industry



Ø 1 to 32 mm
more dimensions on request



iglide® A200 - Technical Data

 iglide®
A200

Material Properties Table

General Properties	Unit	iglide® A200	Testing Method
Density	g/cm ³	1.14	
Color		white	
Max. moisture absorption at 73°F / 50% r.h.	% weight	1.5	DIN 53495
Max. moisture absorption	% weight	7.6	
Coefficient of friction, dynamic against steel	μ	0.10 - 0.40	
pv value, max. (dry)	psi x fpm	2,900	
Mechanical Properties			
Modulus of elasticity	psi	362,600	DIN 53457
Tensile strength at 68°F	psi	16,820	DIN 53452
Compressive strength	psi	7,832	
Permissible static surface pressure (68°F)	psi	2,611	
Shore D-hardness		81	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	176	
Max. application temperature, short-term	°F	338	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	10	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	< 10 ¹³	DIN IEC 93
Surface resistance	Ω	< 10 ¹²	DIN 53482

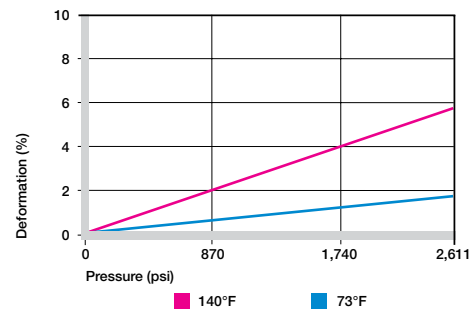
Compressive Strength

The high abrasion resistance, the resistance to dirt, and the ability to run dry make it possible to eliminate the customary, expensive protective coverings of lubricated bearings.

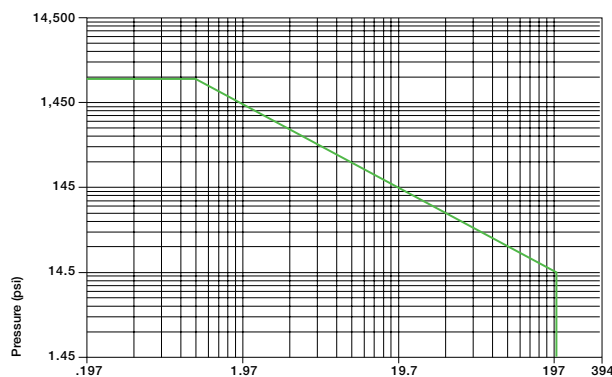
The graph shows the elastic deformation of iglide® A200 for radial loads. At the maximum permissible static surface pressure of 2610 psi, the deformation is less than 2%.

Plastic deformation is minimal up to this radial load. However, it is also a result of the cycle time.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® A200 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® A200 was developed for low surface speeds. Running dry for continuous usage, a maximum of 157 fpm (rotating) or 393 fpm (linear) is possible.

These given values indicate the limits at which an increase up to the continuous permissible temperature occurs. This increase is a result of friction. In practice these limit values are not often reached, due to varying application conditions.

- Surface speed, Page 64
- pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	157	295
Oscillating	118	216
Linear	393	590

Maximum surface speeds

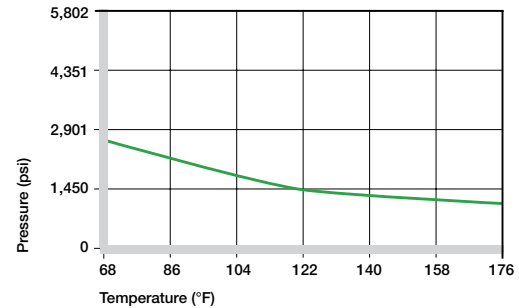
Temperatures

The maximum permissible short-term temperature is 338°F. With increasing temperatures, the compressive strength of iglide® A200 plain bearings decreases. The graph shows this relationship. The ambient temperatures prevalent in the bearing system also have an effect on the bearing wear.

► Application temperatures, Page 67

iglide® A200	Application Temperature
Minimum	-40°F
Max. long-term	+176°F
Max. short-term	+338°F
Additional axial securing	+122°F

Temperature iglide® A200

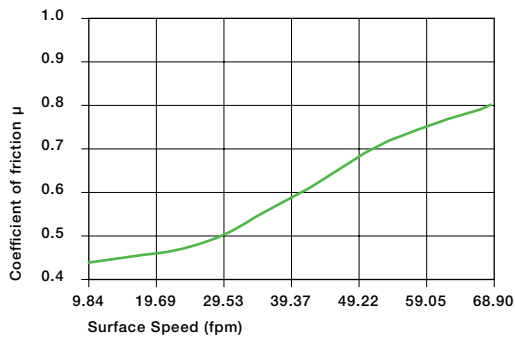


Recommended maximum permissible static surface pressure of iglide® A200 as a result of the temperature

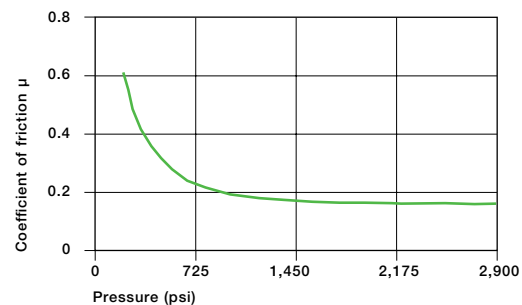
Friction and Wear

Just as the wear resistance, the coefficient of friction also changes with the load.

► Coefficients of friction and surfaces, Page 68
 ► Wear resistance, Page 69



Coefficients of friction of iglide® A200 as a function of the running speed; p = 108 psi



Coefficients of friction of iglide® A200 as a function of the load; v = 1.96 fpm

iglide® A200	Coefficient of Friction
Dry	0.10 - 0.40
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® A200 against steel (Shaft finish = 40 rms, 50 HRC)

iglide® A200 - Technical Data

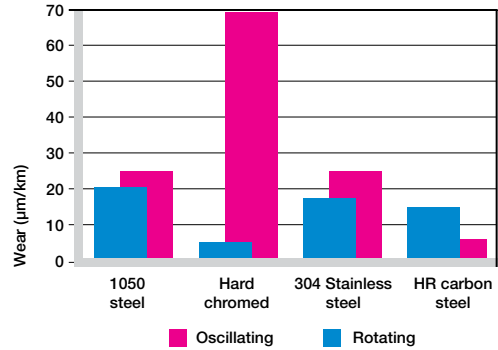
iglide®
A200

Shaft Materials

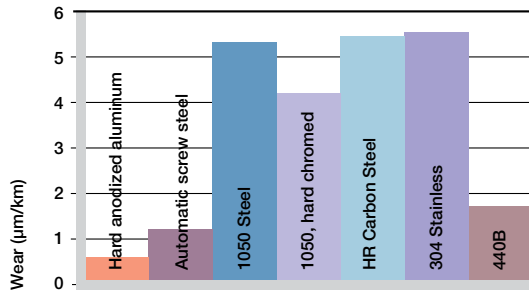
The graphs show the test results of iglide® A200 bearings running against various shaft materials.

The combination of iglide® A200 and hard chromed shaft clearly stands out. Up to a range of about 362 psi, the wear of this combination remains largely independent of the load. In pivoting applications below a load $p = 290$ psi, the wear of iglide® A200 bearings is higher than in rotating applications with equal load. Here the HR carbon steel shaft is a positive exception with its much less coefficient of wear.

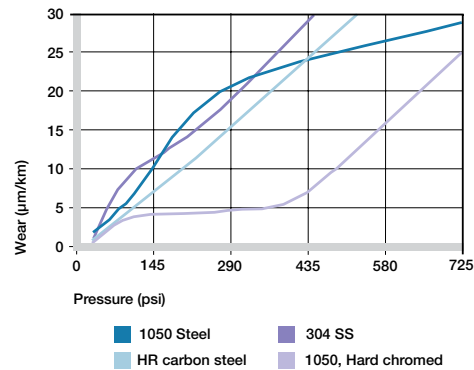
► Shaft Materials, Page 71



Wear with different shaft materials, oscillating and rotating movement p = 290 psi



Wear of iglide® A200, rotating applications with different shaft materials, p=108 psi, v=98 fpm

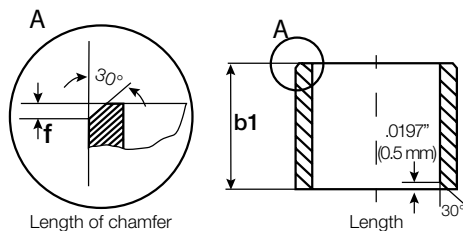


Wear of iglide® A200 with different shaft materials in rotational applications

Installation Tolerances

iglide® A200 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		
Length (inches)	Tolerance (h13) (inches)	Length of Chamfer (f) Based on d1
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		
Length (mm)	Tolerance (h13) (mm)	Length of Chamfer (f) Based on d1
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance & Moisture Absorption

iglide® A200 plain bearings have strong resistance to chemicals. They are also resistant to most lubricants. iglide® A200 plain bearings are not attacked by most weak organic and inorganic acids.

The moisture absorption of iglide® A200 plain bearings is approximately 1.5% in the standard atmosphere. The saturation limit submerged in water is 7.6%. This must be taken into account for these types of use applications.

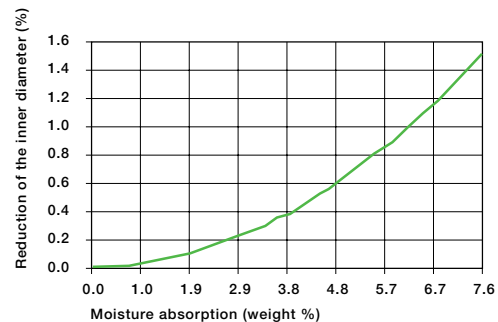
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+ to 0
Hydrocarbon, chlorinated	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to –
Strong acids	–
Weak alkaline	+
Strong alkaline	0

+ resistant, 0 conditionally resistant, – not resistant

Chemical resistance of iglide® A200

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® A200 plain bearings

Radiation Resistance

Plain bearings made from iglide® A200 are resistant to radiation up to an intensity of 2×10^4 Gy. Higher radiation levels attack the material and can cause essential mechanical properties to be lost.

UV-Resistance

iglide® A200 plain bearings are resistant to UV radiation.

Vacuum

In a vacuum environment, iglide® A200 plain bearings have restricted use.

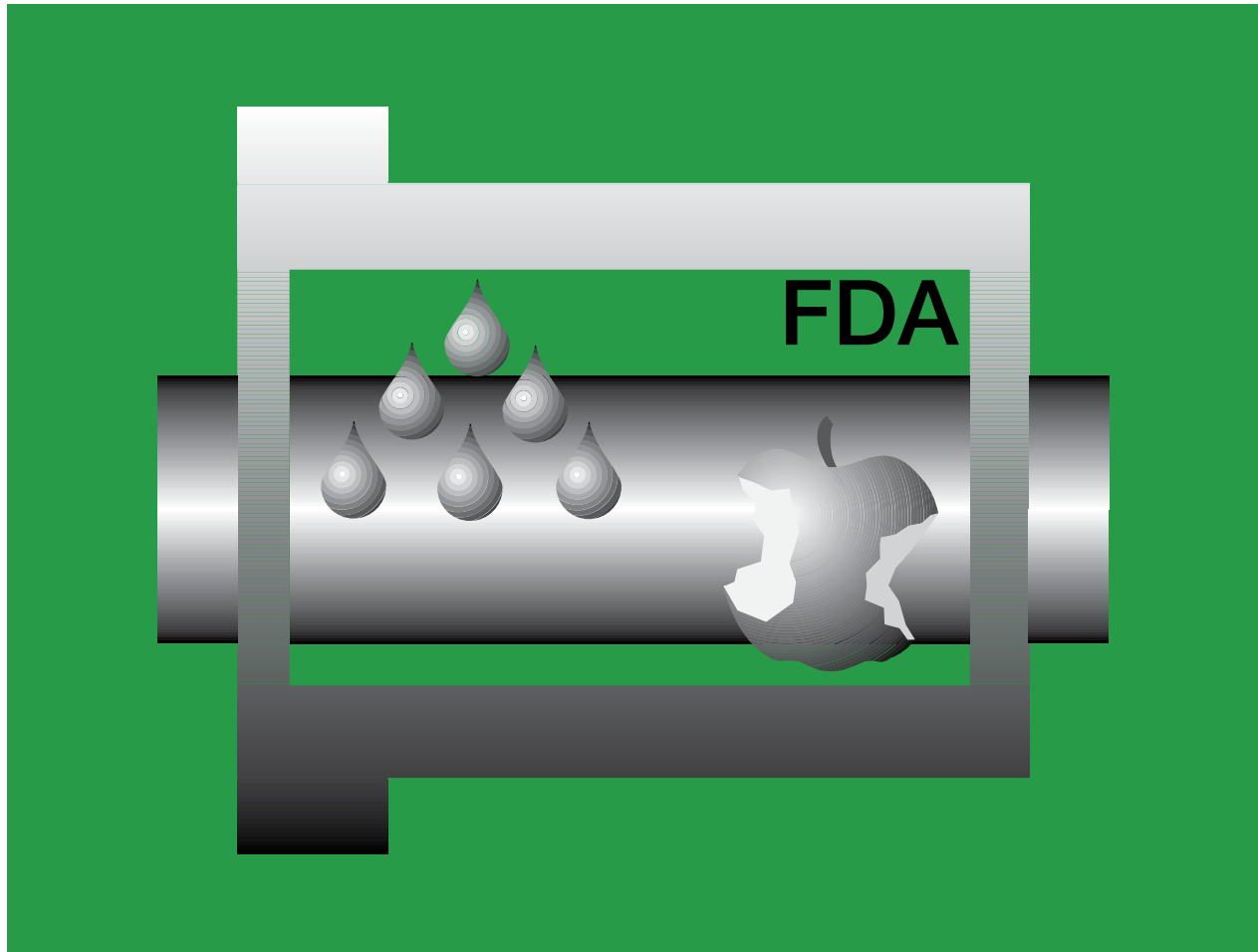
Electrical Properties

iglide® A200 plain bearings are electrically insulating.

iglide® A200

Specific volume resistance	> 10^{13} Ωcm
Surface resistance	> 10^{12} Ω

Electrical properties of iglide® A200



iglide® A350

- Compliant with both FDA and EC Directive 10/2011 EC regulations
- Low moisture absorption
- Good with medium and high loads
- High temperature rating up to 356°F

iglide®
A350

iglide® A350 - Temperature and wear resistant FDA compliant, for medium and high loads



Compliant with FDA and
EC Directive 10/2011 EC

For use with temperatures
up to 356°F



For medium and high loads

Equally good for both
oscillating and rotating
applications

A very universal bearing for use in the area of food and pharmaceutical industries. Composition of FDA compliant materials allows for use in areas where, due to the contact with food, other bearings cannot be used. With good tribological and mechanical properties, iglide® A350 bearings are suitable for general purpose use in food machinery.



- If FDA compliance is required
- If wear-resistance and FDA conformance is necessary at high loads
- If the bearing is used in an acid environment



- When temperatures are continuously greater than 356°F
 - iglide® A500
- When the maximum abrasion resistance is necessary
 - iglide® J
- When a low priced FDA bearing is required
 - iglide® A181
 - iglide® A180
- For high speeds
 - iglide® J



iglide® A350 material complies with EC Directive 10/2011 EC and also with FDA (Food and Drug Administration) specifications for repeated contact with food.



Available from stock

Detailed information about delivery time online.



max. +356°F
min. -148°F



Price breaks online

No minimum order.



Ø 4 to 50 mm
more dimensions on request



Typical application areas

- Food industry
- Beverage technology
- Medical industry

iglide® A350 - Technical Data

 iglide®
A350

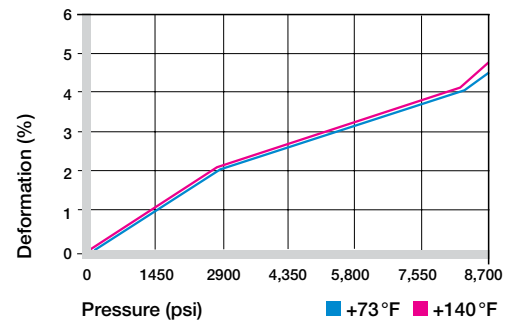
Material Properties Table

General Properties	Unit	iglide® A350	Testing Method
Density	g/cm ³	1.42	
Color		light blue	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.6	DIN 53495
Max. moisture absorption	% weight	1.9	
Coefficient of friction, dynamic against steel	μ	0.10 - 0.20	
pv value, max. (dry)	psi x fpm	11,500	
Mechanical Properties			
Modulus of elasticity	psi	290,100	DIN 53457
Tensile strength at 68°F	psi	15,950	DIN 53452
Compressive strength	psi	11,310	
Permissible static surface pressure (68°F)	psi	8,702	
Shore D-hardness		76	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	356	
Max. application temperature, short-term	°F	410	
Min. application temperature	°F	-148	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	8	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹¹	DIN IEC 93
Surface resistance	Ω	> 10 ¹¹	DIN 53482

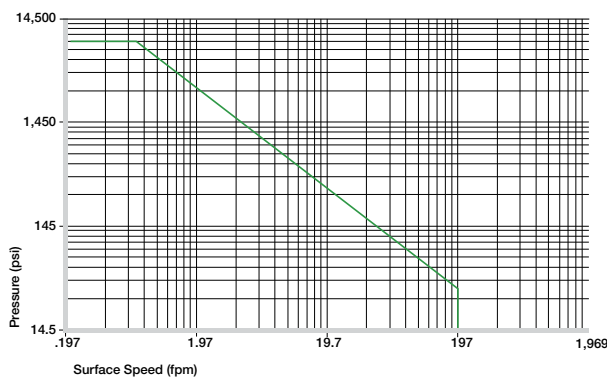
Compressive Strength

The graph at the right shows the elastic deformation of iglide® A350 during radial loading. At the recommended maximum surface pressure of 2900 psi the deformation is less than 5 %.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® A350 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® A350 bearings are suitable for low to medium speeds in both rotating and oscillating applications. Even linear movements can often be realized with iglide® A350.

With high sliding speeds, iglide® J or iglide® L250 can be interesting alternatives because the wear rate of these materials is better.

► Surface speed, Page 64

► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	196	236
Oscillating	157	177
Linear	492	590

Maximum surface speeds

iglide®
A350

iglide® A350 - Technical Data

Temperatures

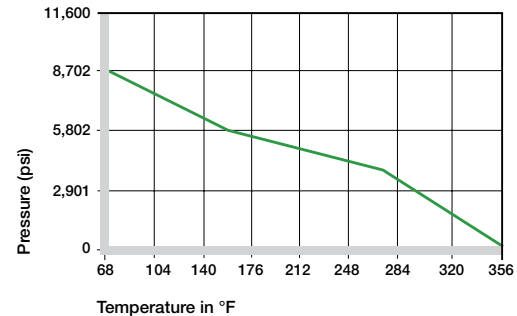
Its temperature resistance makes iglide® A350 an ideal material for a bearing in the area of foodstuffs. Typically, temperatures range up to +266°F, which corresponds perfectly with the applicable temperature range for iglide® A350. Short-term temperatures up to +410 °F are possible. Please note that at temperatures over +284°F, the pressfit forces of the bearings may decrease and an additional axial securing device is recommended.

The wear-rate of iglide® A350 bearings rises only a little with higher temperatures. Tests have shown good wear results at +212 °F on all tested shaft materials.

► Application temperatures, Page 67

iglide® A350	Application Temperature
Minimum	-148°F
Max. long-term	+356°F
Max. short-term	+410°F
Additional axial securing	+284°F

Temperature limits for iglide® A350



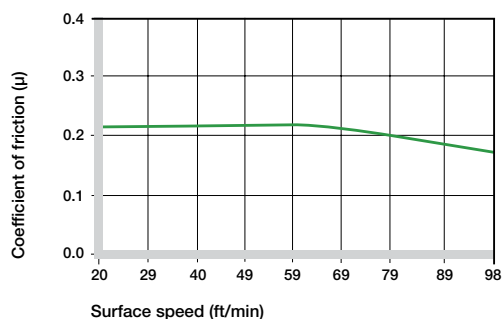
Recommended maximum permissible static surface pressure of iglide® A350 as a result of the temperature

Friction and Wear

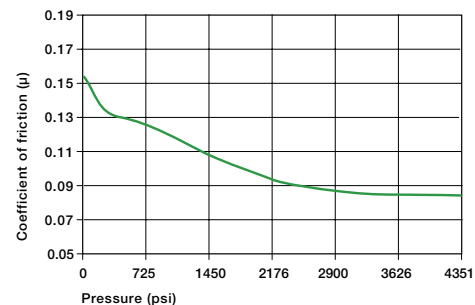
The coefficient of friction of iglide® A350 on a steel shaft is in the mid range. The friction decreases at higher temperatures, which in dry operation is somewhat unusual.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® A350 as a function of the running speed; p = 145 psi



Coefficients of friction of iglide® A350 as a function of the load, v = 1.96 fpm

iglide® A350	Coefficient of Friction
Dry	0.10 - 0.20
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® A350 against steel
(Shaft finish = 40 rms, 50 HRC)

iglide® A350 - Technical Data

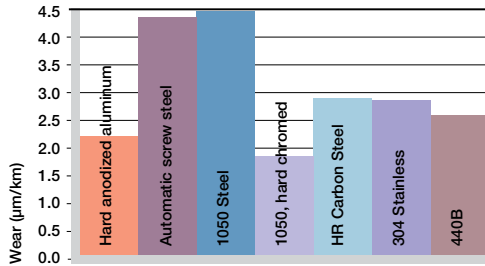
iglide®
A350

Shaft Materials

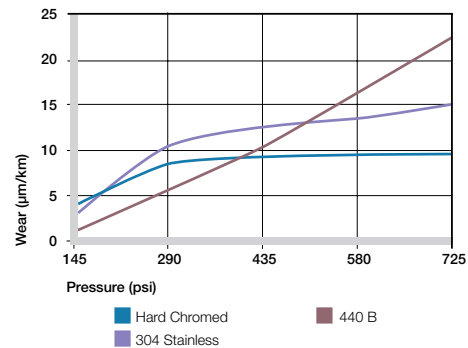
Corrosion-resistant steels are rather considered a natural choice for use in the food industry.

Trials were therefore carried out especially on such materials. It has been shown that there is no clear favorite 440B and hard chrome plated steel are both suitable. Hard-anodized aluminum is also well suited for both linear and rotating movements. For iglide® A350 a ground surface with an average roughness of 16-20 rms is recommended for the shaft.

► Shaft Materials, Page 71



Wear, rotating application with different shaft materials, p = 145 psi, v = 59 fpm

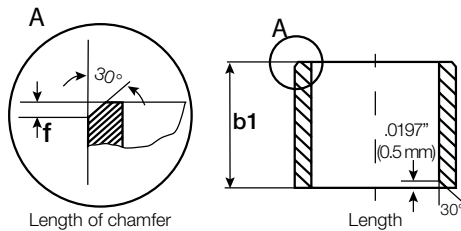


Wear with different shaft materials in rotational operation, as a function of the pressure

Installation Tolerances

iglide® A350 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

- Tolerance table, Page 75
- Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

iglide®
A350

iglide® A350 - Technical Data

Chemical Resistance

iglide® A350 plain bearings are resistant to diluted acids and alkalis, alcohols and detergents. They are also resistant to most lubricants. The iglide® A350 plain bearings are resistant to common cleaning agents in the food industry. iglide® A350 is affected by esters, ketones, chlorinated hydrocarbons, aromatics and highly polar solvents.

► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+ to 0
Greases, oils without additives	+
Fuels	+
Weak acids	+
Strong acids	+
Weak alkaline	+
Strong alkaline	+

+ resistant, 0 conditionally resistant, – not resistant

Chemical resistance of iglide® A350

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® A350 plain bearings

Radiation Resistance

Plain bearings made of iglide® A350 are resistant to radiation up to an intensity of $2 \cdot 10^2$ Gy.

UV-Resistance

iglide® A350 bearings are resistant to UV radiation.

Vacuum

When used in a vacuum environment, the iglide® A350 plain bearings release moisture as a vapor. Therefore, only dehumidified bearings are suitable in a vacuum environment.

Electrical Properties

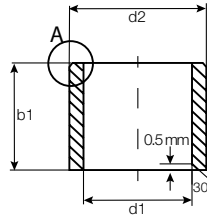
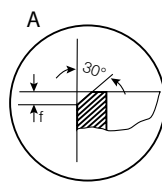
iglide® A350 plain bearings are electrically insulating.

iglide® A350	
Specific volume resistance	> 10^{11} Ωcm
Surface resistance	> 10^{11} Ω

Electrical properties of iglide® A350

iglide® A350 - Product Range

Sleeve bearing - Metric

 iglide®
A350

Order key

Type	Dimensions
A350 S M	-04 05-04

iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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 For tolerance values
please refer to page 451

Dimensions according to ISO 3547-1 and special dimensions

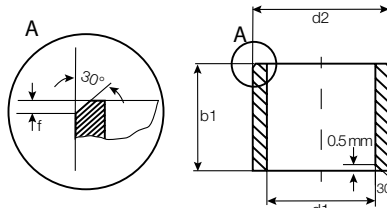
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
A350SM-0405-04	4.0	5.5	4.0	4.010	4.058	5.500	5.512	3.970	4.000
A350SM-0405-06	4.0	5.5	6.0			5.500	5.512	3.970	4.000
A350SM-0507-05	5.0	7.0	5.0	5.010	5.058	7.000	7.015	4.970	5.000
A350SM-0507-10	5.0	7.0	10.0			7.000	7.015	4.970	5.000
A350SM-0608-06	6.0	8.0	6.0	6.010	6.058	8.000	8.015	5.970	6.000
A350SM-0608-08	6.0	8.0	8.0			8.000	8.015	5.970	6.000
A350SM-0608-10	6.0	8.0	6.0			8.000	8.015	5.970	6.000
A350SM-0810-08	8.0	10.0	8.0	8.013	8.071	10.000	10.015	7.964	8.000
A350SM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
A350SM-0810-12	8.0	10.0	12.0			10.000	10.015	7.964	8.000
A350SM-1012-08	10.0	12.0	8.0	10.013	10.071	12.000	12.018	9.964	10.000
A350SM-1012-10	10.0	12.0	10.0			12.000	12.018	9.964	10.000
A350SM-1012-12	10.0	12.0	12.0			12.000	12.018	9.964	10.000
A350SM-1012-15	10.0	12.0	15.0			12.000	12.018	9.964	10.000
A350SM-1012-20	10.0	12.0	20.0			12.000	12.018	9.964	10.000
A350SM-1214-10	12.0	14.0	10.0	12.016	12.086	14.000	14.018	11.957	12.000
A350SM-1214-12	12.0	14.0	12.0			14.000	14.018	11.957	12.000
A350SM-1214-15	12.0	14.0	15.0			14.000	14.018	11.957	12.000
A350SM-1214-20	12.0	14.0	20.0			14.000	14.018	11.957	12.000
A350SM-1315-10	13.0	15.0	10.0	13.016	13.086	15.000	15.018	12.957	13.000
A350SM-1315-20	13.0	15.0	20.0			15.000	15.018	12.957	13.000
A350SM-1416-15	14.0	16.0	15.0	14.016	14.086	16.000	16.018	13.957	14.000
A350SM-1416-20	14.0	16.0	20.0			16.000	16.018	13.957	14.000
A350SM-1416-25	14.0	16.0	25.0			16.000	16.018	13.957	14.000
A350SM-1517-15	15.0	17.0	15.0	15.016	15.086	17.000	17.018	14.957	15.000
A350SM-1517-20	15.0	17.0	20.0			17.000	17.018	14.957	15.000
A350SM-1517-25	15.0	17.0	25.0			17.000	17.018	14.957	15.000
A350SM-1618-15	16.0	18.0	15.0	16.016	16.086	18.000	18.018	15.957	16.000
A350SM-1618-20	16.0	18.0	20.0			18.000	18.018	15.957	16.000
A350SM-1618-25	16.0	18.0	25.0			18.000	18.018	15.957	16.000
A350SM-1820-15	18.0	20.0	15.0	18.016	18.086	20.000	20.021	17.957	18.000
A350SM-1820-20	18.0	20.0	20.0			20.000	20.021	17.957	18.000
A350SM-1820-25	18.0	20.0	25.0			20.000	20.021	17.957	18.000
A350SM-2023-10	20.0	23.0	10.0	20.020	20.104	23.000	23.021	19.948	20.000
A350SM-2023-15	20.0	23.0	15.0			23.000	23.021	19.948	20.000
A350SM-2023-20	20.0	23.0	20.0			23.000	23.021	19.948	20.000
A350SM-2023-25	20.0	23.0	25.0			23.000	23.021	19.948	20.000

iglide®
 A350

iglide® A350 - Product Range

Sleeve bearing - Metric


Order key

 For tolerance values
 please refer to page 451

Type	Dimensions
A350 S M -04 05-04	
iglide® material	Form S (sleeve)
	Metric
	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

Dimensions according to ISO 3547-1 and special dimensions

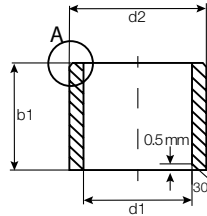
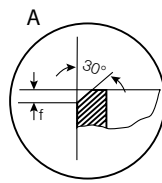
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
A350SM-2023-30	20.0	23.0	30.0	20.020	20.104	23.000	23.021	19.948	20.000
A350SM-2225-15	22.0	25.0	15.0	22.020	22.104	25.000	25.021	21.948	22.000
A350SM-2225-20	22.0	25.0	20.0			25.000	25.021	21.948	22.000
A350SM-2225-25	22.0	25.0	25.0			25.000	25.021	21.948	22.000
A350SM-2225-30	22.0	25.0	30.0			25.000	25.021	21.948	22.000
A350SM-2427-15	24.0	27.0	15.0	24.020	24.104	27.000	27.021	23.948	24.000
A350SM-2427-20	24.0	27.0	20.0			27.000	27.021	23.948	24.000
A350SM-2427-25	24.0	27.0	25.0			27.000	27.021	23.948	24.000
A350SM-2427-30	24.0	27.0	30.0			27.000	27.021	23.948	24.000
A350SM-2428-30	24.0	28.0	30.0	24.020	24.104	28.000	28.021	23.948	24.000
A350SM-2528-15	25.0	28.0	15.0	25.020	25.104	28.000	28.021	24.948	25.000
A350SM-2528-20	25.0	28.0	20.0			28.000	28.021	24.948	25.000
A350SM-2528-25	25.0	28.0	25.0			28.000	28.021	24.948	25.000
A350SM-2528-30	25.0	28.0	30.0			28.000	28.021	24.948	25.000
A350SM-2832-20	28.0	32.0	20.0	28.020	28.104	32.000	32.025	27.948	28.000
A350SM-2832-25	28.0	32.0	25.0			32.000	32.025	27.948	28.000
A350SM-2832-30	28.0	32.0	30.0			32.000	32.025	27.948	28.000
A350SM-3034-20	30.0	34.0	20.0	30.020	30.104	34.000	34.025	29.948	30.000
A350SM-3034-25	30.0	34.0	25.0			34.000	34.025	29.948	30.000
A350SM-3034-30	30.0	34.0	30.0			34.000	34.025	29.948	30.000
A350SM-3034-40	30.0	34.0	40.0			34.000	34.025	29.948	30.000
A350SM-3236-20	32.0	36.0	20.0	32.025	32.125	36.000	36.025	31.938	32.000
A350SM-3236-30	32.0	36.0	30.0			36.000	36.025	31.938	32.000
A350SM-3236-40	32.0	36.0	40.0			36.000	36.025	31.938	32.000
A350SM-3539-20	35.0	39.0	20.0	35.025	35.125	39.000	39.025	34.938	35.000
A350SM-3539-30	35.0	39.0	30.0			39.000	39.025	34.938	35.000
A350SM-3539-40	35.0	39.0	40.0			39.000	39.025	34.938	35.000
A350SM-3539-50	35.0	39.0	50.0			39.000	39.025	34.938	35.000
A350SM-4044-20	40.0	44.0	20.0	40.025	40.125	44.000	44.025	39.938	40.000
A350SM-4044-30	40.0	44.0	30.0			44.000	44.025	39.938	40.000
A350SM-4044-40	40.0	44.0	40.0			44.000	44.025	39.938	40.000
A350SM-4550-20	45.0	50.0	20.0	45.025	45.125	50.000	50.025	44.938	45.000
A350SM-4550-30	45.0	50.0	30.0			50.000	50.025	44.938	45.000
A350SM-4550-40	45.0	50.0	40.0			50.000	50.025	44.938	45.000
A350SM-4550-50	45.0	50.0	50.0			50.000	50.025	44.938	45.000
A350SM-5055-20	50.0	55.0	20.0	50.025	50.125	55.000	55.030	49.938	50.000
A350SM-5055-30	50.0	55.0	30.0			55.000	55.030	49.938	50.000

iglide® A350 - Product Range

Sleeve bearing - Metric

iglide®
A350



Order key

Type	Dimensions
A350 S	M-04 05-04

iglide® material

Form S (sleeve)

Metric

Inner-Ø d1 (mm)

Outer-Ø d2 (mm)

Length b1 (mm)

For tolerance values
please refer to page 451

Dimensions according to ISO 3547-1 and special dimensions

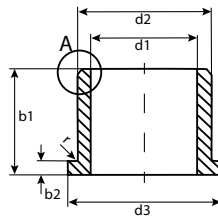
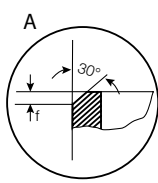
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
A350SM-5055-40	50.0	55.0	40.0	50.025	50.125	55.000	55.030	49.938	50.000
A350SM-5055-50	50.0	55.0	50.0			55.000	55.030	49.938	50.000
A350SM-5055-60	50.0	55.0	60.0			55.000	55.030	49.938	50.000

iglide®
A350

iglide® A350 - Product Range

Flange bearing - Metric



Order key

Type	Dimensions
A350 F M -06 08 -04	
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

$r = \max. 0.5$

For tolerance values please refer to page 451

Dimensions according to ISO 3547-1 and special dimensions

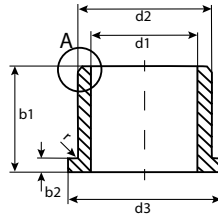
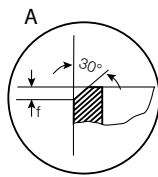
*Based on steel housing bore

Part Number	d1	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
A350FM-0507-05	5.0	7.0	11.0	5.0	1.0	5.010	5.058	7.000	7.015	4.970	5.000
A350FM-0608-04	6.0	8.0	12.0	4.0	1.0	6.010	6.058	8.000	8.015	5.970	6.000
A350FM-0608-06	6.0	8.0	12.0	6.0	1.0			8.000	8.015	5.970	6.000
A350FM-0608-08	6.0	8.0	12.0	8.0	1.0			8.000	8.015	5.970	6.000
A350FM-0810-05	8.0	10.0	15.0	5.5	1.0	8.013	8.071	10.000	10.015	9.964	10.000
A350FM-0810-07	8.0	10.0	15.0	7.5	1.0			10.000	10.015	9.964	10.000
A350FM-0810-09	8.0	10.0	15.0	9.5	1.0			10.000	10.015	9.964	10.000
A350FM-0810-10	8.0	10.0	15.0	10.0	1.0			10.000	10.015	9.964	10.000
A350FM-1012-07	10.0	12.0	18.0	7.0	1.0	10.013	10.071	12.000	12.018	9.964	10.000
A350FM-1012-09	10.0	12.0	18.0	9.0	1.0			12.000	12.018	9.964	10.000
A350FM-1012-10	10.0	12.0	18.0	10.0	1.0			12.000	12.018	9.964	10.000
A350FM-1012-12	10.0	12.0	18.0	12.0	1.0			12.000	12.018	9.964	10.000
A350FM-1012-17	10.0	12.0	18.0	17.0	1.0			12.000	12.018	9.964	10.000
A350FM-1214-07	12.0	14.0	20.0	7.0	1.0	12.016	12.086	14.000	14.018	11.957	12.000
A350FM-1214-09	12.0	14.0	20.0	9.0	1.0			14.000	14.018	11.957	12.000
A350FM-1214-12	12.0	14.0	20.0	12.0	1.0			14.000	14.018	11.957	12.000
A350FM-1214-17	12.0	14.0	20.0	17.0	1.0			14.000	14.018	11.957	12.000
A350FM-1416-12	14.0	16.0	22.0	12.0	1.0	14.016	14.086	16.000	16.018	13.957	14.000
A350FM-1416-17	14.0	16.0	22.0	17.0	1.0			16.000	16.018	13.957	14.000
A350FM-1517-09	15.0	17.0	23.0	9.0	1.0	15.016	15.086	17.000	17.018	14.957	15.000
A350FM-1517-12	15.0	17.0	23.0	12.0	1.0			17.000	17.018	14.957	15.000
A350FM-1517-17	15.0	17.0	23.0	17.0	1.0			17.000	17.018	14.957	15.000
A350FM-1618-12	16.0	18.0	24.0	12.0	1.0	16.016	16.086	18.000	18.018	15.957	16.000
A350FM-1618-17	16.0	18.0	24.0	17.0	1.0			18.000	18.018	15.957	16.000
A350FM-1820-12	18.0	20.0	26.0	12.0	1.0	18.016	18.086	20.000	20.021	17.957	18.000
A350FM-1820-17	18.0	20.0	26.0	17.0	1.0			20.000	20.021	17.957	18.000
A350FM-1820-22	18.0	20.0	26.0	22.0	1.0			20.000	20.021	17.957	18.000
A350FM-2023-11	20.0	23.0	30.0	11.5	1.5	20.020	20.104	23.000	23.021	20.948	21.000
A350FM-2023-16	20.0	23.0	30.0	16.5	1.5			23.000	23.021	20.948	21.000
A350FM-2023-21	20.0	23.0	30.0	21.5	1.5			23.000	23.021	20.948	21.000
A350FM-2528-11	25.0	28.0	35.0	11.5	1.5	25.020	25.104	28.000	28.021	24.948	25.000
A350FM-2528-16	25.0	28.0	35.0	16.5	1.5			28.000	28.021	24.948	25.000
A350FM-2528-21	25.0	28.0	35.0	21.5	1.5			28.000	28.021	24.948	25.000
A350FM-3034-16	30.0	34.0	42.0	16.0	2.0	30.020	30.104	34.000	34.025	29.948	30.000
A350FM-3034-26	30.0	34.0	42.0	26.0	2.0			34.000	34.025	29.948	30.000
A350FM-3539-16	35.0	39.0	47.0	16.0	2.0	35.025	35.125	39.000	39.025	34.938	35.000
A350FM-3539-26	35.0	39.0	47.0	26.0	2.0			39.000	39.025	34.938	35.000

iglide® A350 - Product Range

Flange bearing - Metric

iglide®
A350



Order key

Type	Dimensions
A350 F M	-06 08-04

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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$r = \max. 0.5$

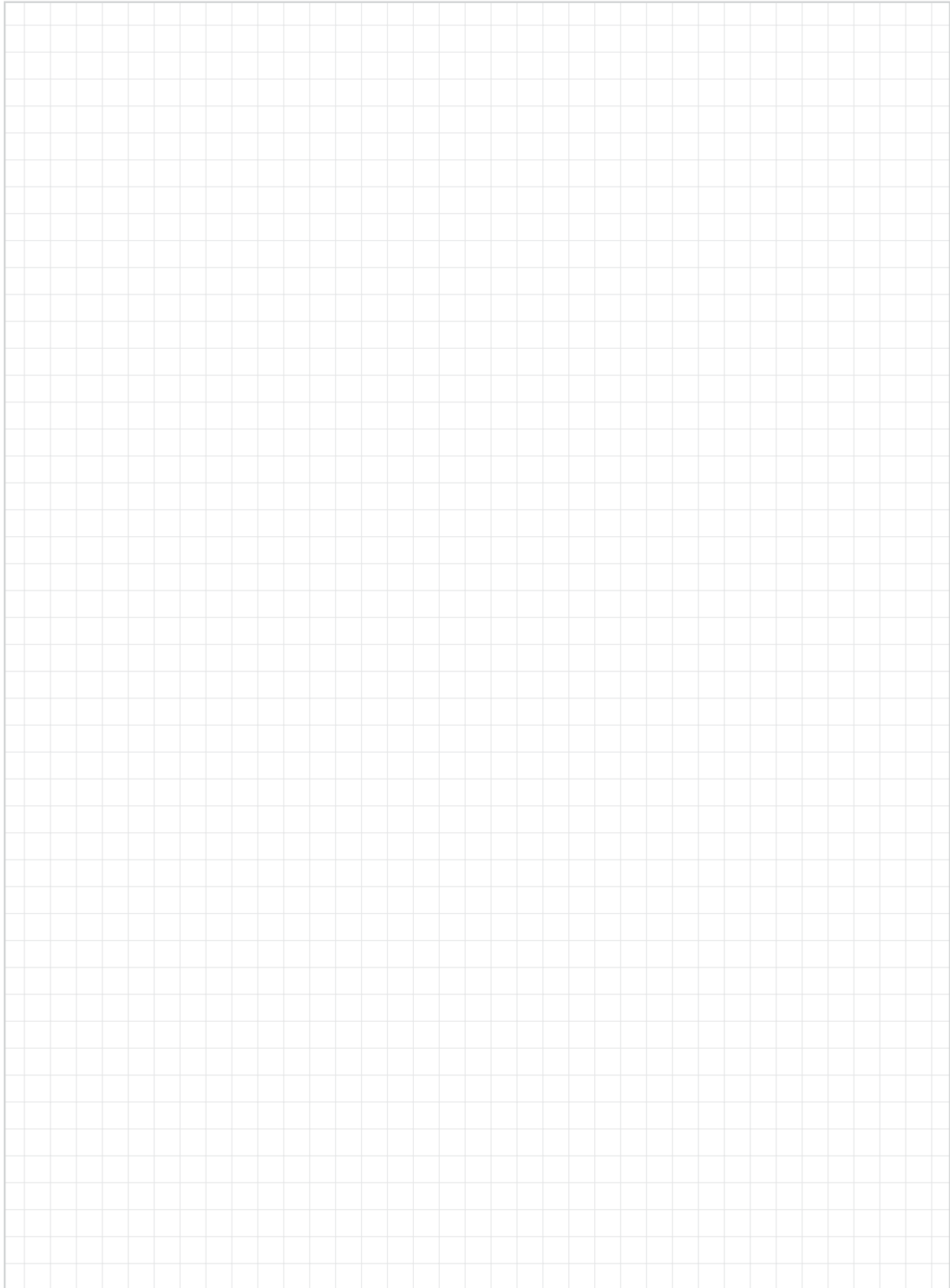
For tolerance values
please refer to page 451

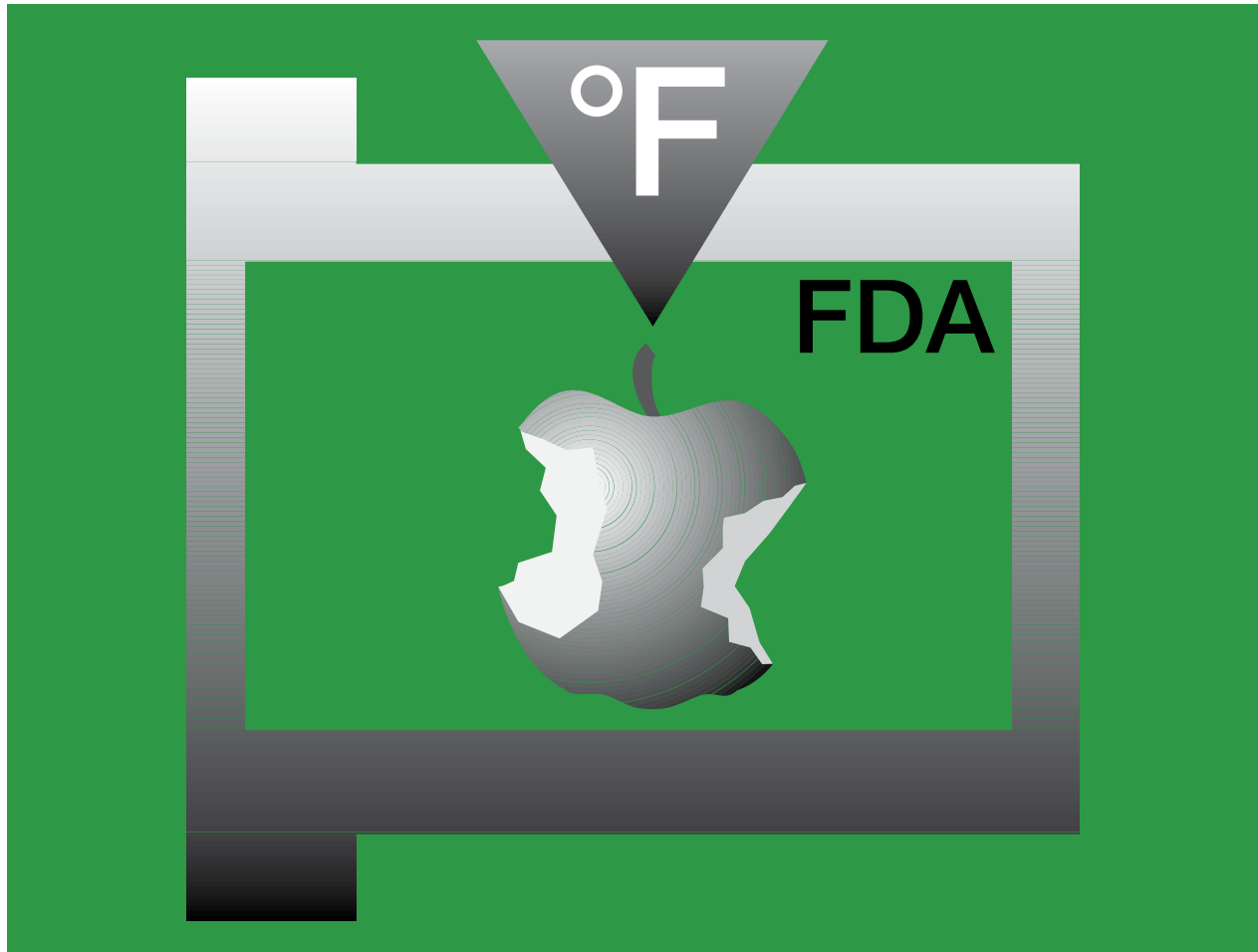
Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
A350FM-4044-30	40.0	44.0	52.0	30.0	2.0	40.025	40.125	44.000	44.025	39.938	40.000
A350FM-4044-40	40.0	44.0	52.0	40.0	2.0			44.000	44.025	39.938	40.000
A350FM-4550-50	45.0	50.0	58.0	50.0	2.5	45.025	45.125	50.000	50.025	44.938	45.000

Notes





iglide® A500

- Compliant with EC Directive 10/2011 EC
- FDA compliant
- Temperature resistant from -148°F to 482°F
- High chemical resistance

iglide®
A500

iglide® A500 - FDA and EC Directive compliant

FDA compliant

Compliant with EC
Directive 10/2011 EC
FDA compliant

Temperature resistant
from -148°F to 482°F

Excellent chemical resistance

Plastic bearings made of iglide® A500 can be exposed to extremely high temperatures and consist of materials suitable for direct contact with food (FDA conformity)



- When FDA compliance is required
- When a high chemical resistance is required
- Good abrasion resistance
- Temperature resistant from -148°F to 482°F



- When the highest wear resistance is required
 - iglide® X6
 - iglide® Z
- If no resistance to temperature or chemicals is required
 - iglide® A181
- When a cost-effective universal bearing is desired
 - iglide® G300
 - iglide® P



iglide® A500 material complies with EC Directive 10/2011 EC and also with FDA (Food and Drug Administration) specifications for repeated contact with food.



Available from stock

Detailed information about delivery time online.



max. +482°F
min. -148°F



Price breaks online

No minimum order.



Ø 4 to 50 mm
more dimensions on request



Typical application areas

- Food industry
- Beverage technology
- Medical etc.

iglide® A500 - Technical Data

 iglide®
A500

Material Properties Table

General Properties	Unit	iglide® A500	Testing Method
Density	g/cm ³	1.28	
Color		brown	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.3	DIN 53495
Max. moisture absorption	% weight	0.5	
Coefficient of friction, dynamic against steel	μ	0.26 - 0.41	
pv value, max. (dry)	psi x fpm	8,000	

Mechanical Properties	Unit	iglide® A500	Testing Method
Modulus of elasticity	psi	522,100	DIN 53457
Tensile strength at 68°F	psi	20,310	DIN 53452
Compressive strength	psi	17,110	
Permissible static surface pressure (68°F)	psi	17,400	
Shore D-hardness		83	DIN 53505

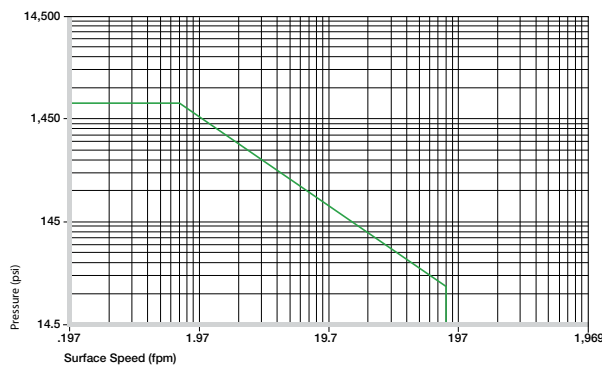
Physical and Thermal Properties	Unit	iglide® A500	Testing Method
Max. long-term application temperature	°F	482	
Max. application temperature, short-term	°F	572	
Min. application temperature	°F	-148	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	9	DIN 53752

Electrical Properties	Unit	iglide® A500	Testing Method
Specific volume resistance	Ωcm	> 10 ¹⁴	DIN IEC 93
Surface resistance	Ω	> 10 ¹³	DIN 53482

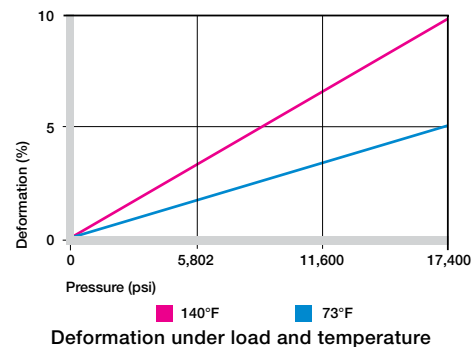
Compressive Strength

Although iglide® A500 is a very flexible material it features excellent compressive strength, even at high temperatures. The graph shows the recommended maximum surface pressure of the bearings against temperature. This combination of high strength and high flexibility gives real benefits in applications involving vibrations and edge loadings. Due to the fact that the wear of the plain bearings rapidly increases from pressures of 1,450 to 2,901 psi, we recommend to thoroughly check applications above these values.

► Compressive strength, Page 63



Permissible pv values for iglide® A500 running dry against a steel shaft, at 68°F



Deformation under load and temperature

Permissible Surface Speeds

Due to its high temperature resistance, iglide® A500 also allows for high surface speeds. However, the coefficient of friction continues to increase these high speeds, resulting in a greater heating of the bearings. Test results show that iglide® A500 plain bearings are more resistant to wear in oscillating movements; the permissible pv values are also higher in oscillating operation.

- Surface speed, Page 64
- pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	118	196
Oscillating	78	137
Linear	196	393

Maximum surface speeds

iglide®
A500

iglide® A500 - Technical Data

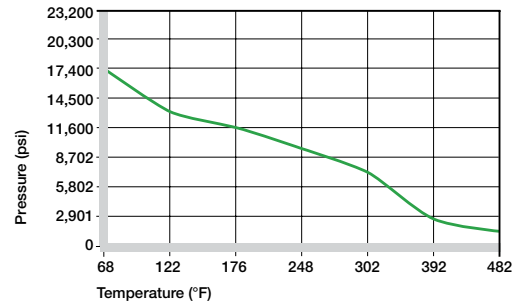
Temperatures

The short term permissible highest application temperature is 572°F. The compressive strength of iglide® A500 plain bearings decreases with increasing temperatures. The graph illustrates this relationship.

► Application temperatures, Page 67

iglide® A500	Application Temperature
Minimum	-148°F
Max. long-term	+482°F
Max. short-term	+572°F
Additional axial securing	+266°F

Temperature iglide® A500

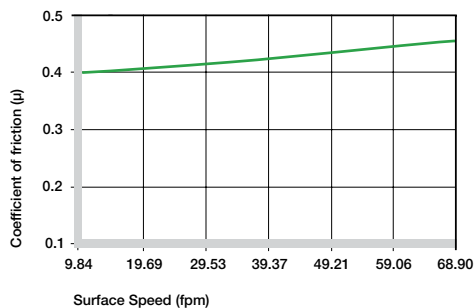


Recommended maximum permissible static surface pressure of iglide® A500 as a result of the temperature

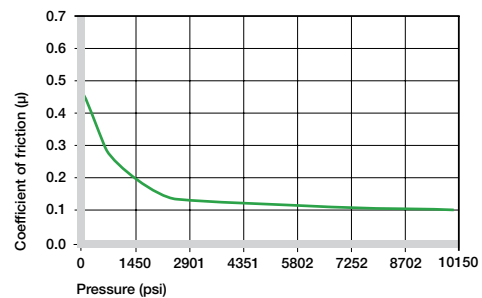
Friction and Wear

The coefficient of friction is dependent on the load that acts on the bearing. Ground surfaces with an average roughness of 16 to 38 rms are the most suitable.

► Coefficients of friction and surfaces, Page 68
 ► Wear resistance, Page 69



Coefficients of friction of iglide® A500 as a function of the running speed; p = 108 psi



Coefficients of friction of iglide® A500 as a function of the load, v = 1.96 fpm

iglide® A500	Coefficient of Friction
Dry	0.26 - 0.41
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® A500 against steel (Shaft finish = 40 rms, 50 HRC)

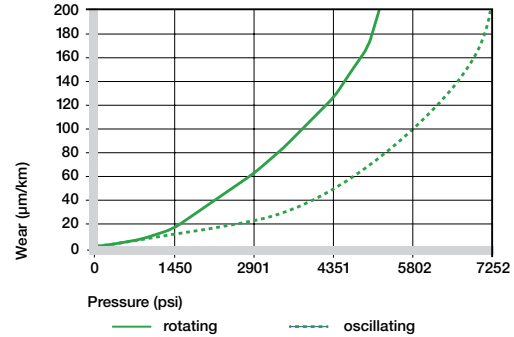
iglide® A500 - Technical Data

iglide®
A500

Shaft Materials

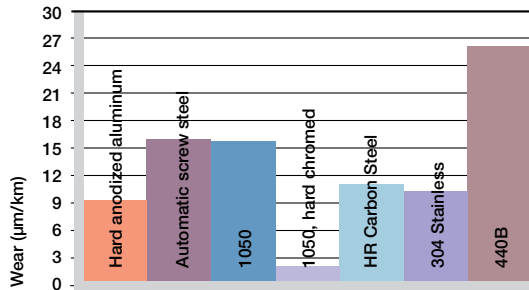
The graphs illustrate the results of testing done with various shaft materials in combination with iglide® A500 bearings. iglide® A500 against a hard-chromed shaft in a rotational manner is interesting. Up to approximately 290 psi, the wear of this combination is unaffected by the load.

With regard to oscillating movements against shafts of 1050 steel, the wear resistance is better than that of rotation under the same pressure. If the shaft material you intend to use is not included in these graphs please contact us.



Wear with different shaft materials, oscillating and rotating movement p = 290 psi

► Shaft Materials, Page 71

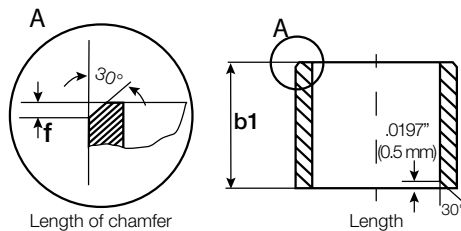


Wear of iglide® A500, rotating applications with different shaft materials, p=108 psi, v=98 fpm

Installation Tolerances

iglide® A500 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

- Tolerance table, Page 75
- Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical & Moisture Resistance

iglide® A500 plain bearings feature an excellent resistance with regards to detergents, greases, oils, bases and acids. The moisture absorption of iglide® A500 plain bearings is only 0.5% when saturated.

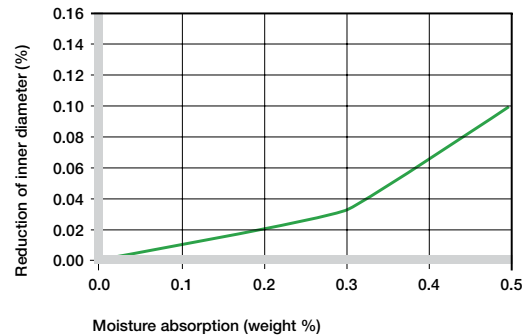
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon, chlorinated	+
Greases, oils without additives	+
Fuels	+
Weak acids	+
Strong acids	+
Weak alkaline	+
Strong alkaline	+

+ resistant, 0 conditionally resistant, – not resistant

Chemical resistance of iglide® A500

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® A500 plain bearings

Radiation Resistance

Plain bearings made from iglide® A500 rank among the most radiation resistant products in the iglide® range. The bearings are resistant up to a radiation intensity of 2×10 Gy. Higher radiation affects the material and can result in the loss of basic mechanical characteristics.

UV-Resistance

To a large extent, iglide® A500 plain bearings are resistant to UV radiation.

Vacuum

In a vacuum environment, iglide® A500 plain bearings can only be used to a limited degree.

Electrical Properties

iglide® A500 plain bearings are electrically insulating.

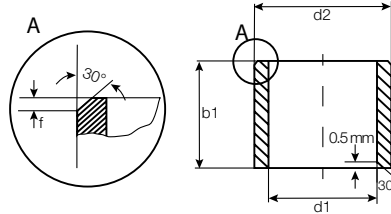
iglide® A500

Specific volume resistance	$> 10^{14} \Omega\text{cm}$
Surface resistance	$> 10^{13} \Omega$

Electrical properties of iglide® A500

iglide® A500 - Product Range

Sleeve bearing - Metric

 iglide®
A500

Order key

Type	Dimensions
A500 S M	-04 05-04

iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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 For tolerance values
please refer to page 463

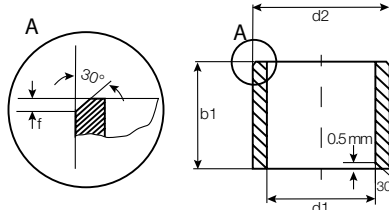
 Dimensions according to ISO 3547-1 and special dimensions
 *Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
A500SM-0405-04	4.0	5.5	4.0	4.010	4.058	5.500	5.512	3.970	4.000
A500SM-0405-06	4.0	5.5	6.0			5.500	5.512	3.970	4.000
A500SM-0507-05	5.0	7.0	5.0	5.010	5.058	7.000	7.015	4.970	5.000
A500SM-0507-10	5.0	7.0	10.0			7.000	7.015	4.970	5.000
A500SM-0608-06	6.0	8.0	6.0	6.010	6.058	8.000	8.015	5.970	6.000
A500SM-0608-08	6.0	8.0	8.0			8.000	8.015	5.970	6.000
A500SM-0608-10	6.0	8.0	10.0			8.000	8.015	5.970	6.000
A500SM-0810-08	8.0	10.0	8.0	8.013	8.071	10.000	10.018	7.964	8.000
A500SM-0810-10	8.0	10.0	10.0			10.000	10.018	7.964	8.000
A500SM-0810-12	8.0	10.0	12.0			10.000	10.018	7.964	8.000
A500SM-1012-08	10.0	12.0	8.0	10.013	10.071	12.000	12.018	9.964	10.000
A500SM-1012-10	10.0	12.0	10.0			12.000	12.018	9.964	10.000
A500SM-1012-12	10.0	12.0	12.0			12.000	12.018	9.964	10.000
A500SM-1012-15	10.0	12.0	15.0			12.000	12.018	9.964	10.000
A500SM-1012-20	10.0	12.0	20.0			12.000	12.018	9.964	10.000
A500SM-1214-10	12.0	14.0	10.0			12.016	12.086	14.000	14.018
A500SM-1214-12	12.0	14.0	12.0	14.000	14.018			11.957	12.000
A500SM-1214-15	12.0	14.0	15.0	14.000	14.018			11.957	12.000
A500SM-1214-20	12.0	14.0	20.0	14.000	14.018			11.957	12.000
A500SM-1315-10	13.0	15.0	10.0	13.016	13.086	15.000	15.018	12.957	13.000
A500SM-1315-20	13.0	15.0	20.0			15.000	15.018	12.957	13.000
A500SM-1416-15	14.0	16.0	15.0	14.016	14.086	16.000	16.018	13.957	14.000
A500SM-1416-20	14.0	16.0	20.0			16.000	16.018	13.957	14.000
A500SM-1416-25	14.0	16.0	25.0			16.000	16.018	13.957	14.000
A500SM-1517-15	15.0	17.0	15.0	15.016	15.086	17.000	17.018	14.957	15.000
A500SM-1517-20	15.0	17.0	20.0			17.000	17.018	14.957	15.000
A500SM-1517-25	15.0	17.0	25.0			17.000	17.018	14.957	15.000
A500SM-1618-15	16.0	18.0	15.0	16.016	16.086	18.000	18.018	15.957	16.000
A500SM-1618-20	16.0	18.0	15.0			18.000	18.018	15.957	16.000
A500SM-1618-25	16.0	18.0	25.0			18.000	18.018	15.957	16.000
A500SM-1820-15	18.0	20.0	15.0	18.016	18.086	20.000	20.021	17.957	18.000
A500SM-1820-20	18.0	20.0	20.0			20.000	20.021	17.957	18.000
A500SM-1820-25	18.0	20.0	25.0			20.000	20.021	17.957	18.000
A500SM-2023-10	20.0	23.0	10.0	20.020	20.104	23.000	23.021	19.948	20.000
A500SM-2023-15	20.0	23.0	15.0			23.000	23.021	19.948	20.000
A500SM-2023-20	20.0	23.0	20.0			23.000	23.021	19.948	20.000
A500SM-2023-25	20.0	23.0	25.0			23.000	23.021	19.948	20.000

iglide®
A500

iglide® A500 - Product Range

Sleeve bearing - Metric



Order key

Type	Dimensions
A500 S M -04 05-04	
iglide® material	Form S (sleeve)
	Metric
	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

For tolerance values
please refer to page 463

Dimensions according to ISO 3547-1 and special dimensions

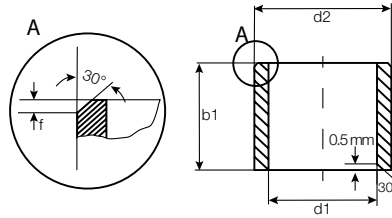
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
A500SM-2023-30	20.0	23.0	30.0	20.020	20.104	23.000	23.021	19.948	20.000
A500SM-2225-15	22.0	25.0	15.0	22.020	22.104	25.000	25.021	21.948	22.000
A500SM-2225-20	22.0	25.0	20.0			25.000	25.021	21.948	22.000
A500SM-2225-25	22.0	25.0	25.0			25.000	25.021	21.948	22.000
A500SM-2225-30	22.0	25.0	30.0			25.000	25.021	21.948	22.000
A500SM-2427-15	24.0	27.0	15.0	24.020	24.104	27.000	27.021	23.948	24.000
A500SM-2427-20	24.0	27.0	20.0			27.000	27.021	23.948	24.000
A500SM-2427-25	24.0	27.0	25.0			27.000	27.021	23.948	24.000
A500SM-2427-30	24.0	27.0	30.0			27.000	27.021	23.948	24.000
A500SM-2528-15	25.0	28.0	15.0	25.020	25.104	28.000	28.021	24.948	25.000
A500SM-2528-20	25.0	28.0	20.0			28.000	28.021	24.948	25.000
A500SM-2528-25	25.0	28.0	25.0			28.000	28.021	24.948	25.000
A500SM-2528-30	25.0	28.0	30.0			28.000	28.021	24.948	25.000
A500SM-2832-20	28.0	32.0	20.0	28.020	28.104	32.000	32.025	27.948	28.000
A500SM-2832-25	28.0	32.0	25.0			32.000	32.025	27.948	28.000
A500SM-2832-30	28.0	32.0	30.0			32.000	32.025	27.948	28.000
A500SM-3034-20	30.0	34.0	20.0	30.020	30.104	34.000	34.025	29.948	30.000
A500SM-3034-25	30.0	34.0	25.0			34.000	34.025	29.948	30.000
A500SM-3034-30	30.0	34.0	30.0			34.000	34.025	29.948	30.000
A500SM-3034-40	30.0	34.0	40.0			34.000	34.025	29.948	30.000
A500SM-3236-20	32.0	36.0	20.0	32.025	32.125	36.000	36.025	31.938	32.000
A500SM-3236-30	32.0	36.0	30.0			36.000	36.025	31.938	32.000
A500SM-3236-40	32.0	36.0	40.0			36.000	36.025	31.938	32.000
A500SM-3539-20	35.0	39.0	20.0	35.025	35.125	39.000	39.025	34.938	35.000
A500SM-3539-30	35.0	39.0	30.0			39.000	39.025	34.938	35.000
A500SM-3539-40	35.0	39.0	40.0			39.000	39.025	34.938	35.000
A500SM-3539-50	35.0	39.0	50.0			39.000	39.025	34.938	35.000
A500SM-4044-20	40.0	44.0	20.0	40.025	40.125	44.000	44.025	39.938	40.000
A500SM-4044-30	40.0	44.0	30.0			44.000	44.025	39.938	40.000
A500SM-4044-40	40.0	44.0	40.0			44.000	44.025	39.938	40.000
A500SM-4044-50	40.0	44.0	50.0			44.000	44.025	39.938	40.000
A500SM-4550-20	45.0	50.0	20.0	45.025	45.125	50.000	50.025	44.938	45.000
A500SM-4550-30	45.0	50.0	30.0			50.000	50.025	44.938	45.000
A500SM-4550-40	45.0	50.0	40.0			50.000	50.025	44.938	45.000
A500SM-4550-50	45.0	50.0	50.0			50.000	50.025	44.938	45.000
A500SM-5055-20	50.0	55.0	20.0	50.025	50.125	55.000	55.030	49.938	50.000
A500SM-5055-30	50.0	55.0	30.0			55.000	55.030	49.938	50.000

iglide® A500 - Product Range

Sleeve bearing - Metric

iglide®
A500



Order key

Type	Dimensions
A500 S M	-04 05 -04

iglide® material

Form S (sleeve)

Metric

Inner-Ø d1 (mm)

Outer-Ø d2 (mm)

Length b1 (mm)

For tolerance values
please refer to page 463

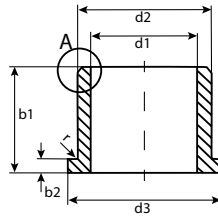
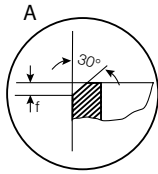
Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
A500SM-5055-40	50.0	55.0	40.0	50.025	50.125	55.000	55.030	49.938	50.000
A500SM-5055-50	50.0	55.0	50.0			55.000	55.030	49.938	50.000
A500SM-5055-60	50.0	55.0	60.0			55.000	55.030	49.938	50.000

iglide®
A500

iglide® A500 - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
A500 F M	-06 08-04

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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 $r = \max. 0.5$

 For tolerance values
please refer to page 463

Dimensions according to ISO 3547-1 and special dimensions

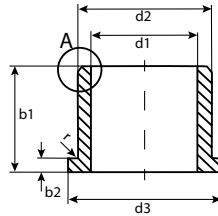
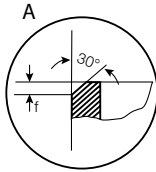
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
A500FM-0608-04	6.0	8.0	12.0	4.0	1.0	6.010	6.058	8.000	8.012	5.970	6.000
A500FM-0608-06	6.0	8.0	12.0	6.0	1.0			8.000	8.012	5.970	6.000
A500FM-0608-08	6.0	8.0	12.0	8.0	1.0			8.000	8.012	5.970	6.000
A500FM-0810-05	8.0	10.0	15.0	5.5	1.0	8.013	8.071	10.000	10.015	9.964	10.000
A500FM-0810-07	8.0	10.0	15.0	7.5	1.0			10.000	10.015	9.964	10.000
A500FM-0810-09	8.0	10.0	15.0	9.5	1.0			10.000	10.015	9.964	10.000
A500FM-0810-10	8.0	10.0	15.0	10.0	1.0			10.000	10.015	9.964	10.000
A500FM-1012-07	10.0	12.0	18.0	7.0	1.0	10.013	10.071	12.000	12.018	9.964	10.000
A500FM-1012-09	10.0	12.0	18.0	9.0	1.0			12.000	12.018	9.964	10.000
A500FM-1012-10	10.0	12.0	18.0	10.0	1.0			12.000	12.018	9.964	10.000
A500FM-1012-12	10.0	12.0	18.0	12.0	1.0			12.000	12.018	9.964	10.000
A500FM-1012-17	10.0	12.0	18.0	17.0	1.0			12.000	12.018	9.964	10.000
A500FM-1214-07	12.0	14.0	20.0	7.0	1.0	12.016	12.086	14.000	14.018	11.957	12.000
A500FM-1214-09	12.0	14.0	20.0	9.0	1.0			14.000	14.018	11.957	12.000
A500FM-1214-12	12.0	14.0	20.0	12.0	1.0			14.000	14.018	11.957	12.000
A500FM-1214-17	12.0	14.0	20.0	17.0	1.0			14.000	14.018	11.957	12.000
A500FM-1416-12	14.0	16.0	22.0	12.0	1.0	14.016	14.086	16.000	16.018	13.957	14.000
A500FM-1416-17	14.0	16.0	22.0	17.0	1.0			16.000	16.018	13.957	14.000
A500FM-1517-09	15.0	17.0	23.0	9.0	1.0	15.016	15.086	17.000	17.018	14.957	15.000
A500FM-1517-12	15.0	17.0	23.0	12.0	1.0			17.000	17.018	14.957	15.000
A500FM-1517-17	15.0	17.0	23.0	17.0	1.0			17.000	17.018	14.957	15.000
A500FM-1618-12	16.0	18.0	24.0	12.0	1.0	16.016	16.086	18.000	18.018	15.957	16.000
A500FM-1618-17	16.0	18.0	24.0	17.0	1.0			18.000	18.018	15.957	16.000
A500FM-1820-12	18.0	20.0	26.0	12.0	1.0	18.016	18.086	20.000	20.018	17.957	18.000
A500FM-1820-17	18.0	20.0	26.0	17.0	1.0			20.000	20.018	17.957	18.000
A500FM-1820-22	18.0	20.0	26.0	22.0	1.0			20.000	20.018	17.957	18.000
A500FM-2023-11	20.0	23.0	30.0	11.5	1.5	20.020	20.104	23.000	23.021	20.948	21.000
A500FM-2023-16	20.0	23.0	30.0	16.5	1.5			23.000	23.021	20.948	21.000
A500FM-2023-21	20.0	23.0	30.0	21.5	1.5			23.000	23.021	20.948	21.000
A500FM-2528-11	25.0	28.0	35.0	11.5	1.5	25.020	25.104	28.000	28.021	24.948	25.000
A500FM-2528-16	25.0	28.0	35.0	16.5	1.5			28.000	28.021	24.948	25.000
A500FM-2528-21	25.0	28.0	35.0	21.5	1.5			28.000	28.021	24.948	25.000
A500FM-3034-16	30.0	34.0	42.0	16.0	2.0	30.020	30.104	34.000	34.021	29.948	30.000
A500FM-3034-26	30.0	34.0	42.0	26.0	2.0			34.000	34.021	29.948	30.000
A500FM-3539-16	35.0	39.0	47.0	16.0	2.0	35.025	35.125	39.000	39.025	34.938	35.000
A500FM-3539-26	35.0	39.0	47.0	26.0	2.0			39.000	39.025	34.938	35.000
A500FM-4044-30	40.0	44.0	52.0	30.0	2.0	40.025	40.125	44.000	44.025	39.938	40.000

iglide® A500 - Product Range

Flange bearing - Metric

iglide®
A500



Order key

Type	Dimensions
A500 F M	-06 08-04

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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$r = \max. 0.5$

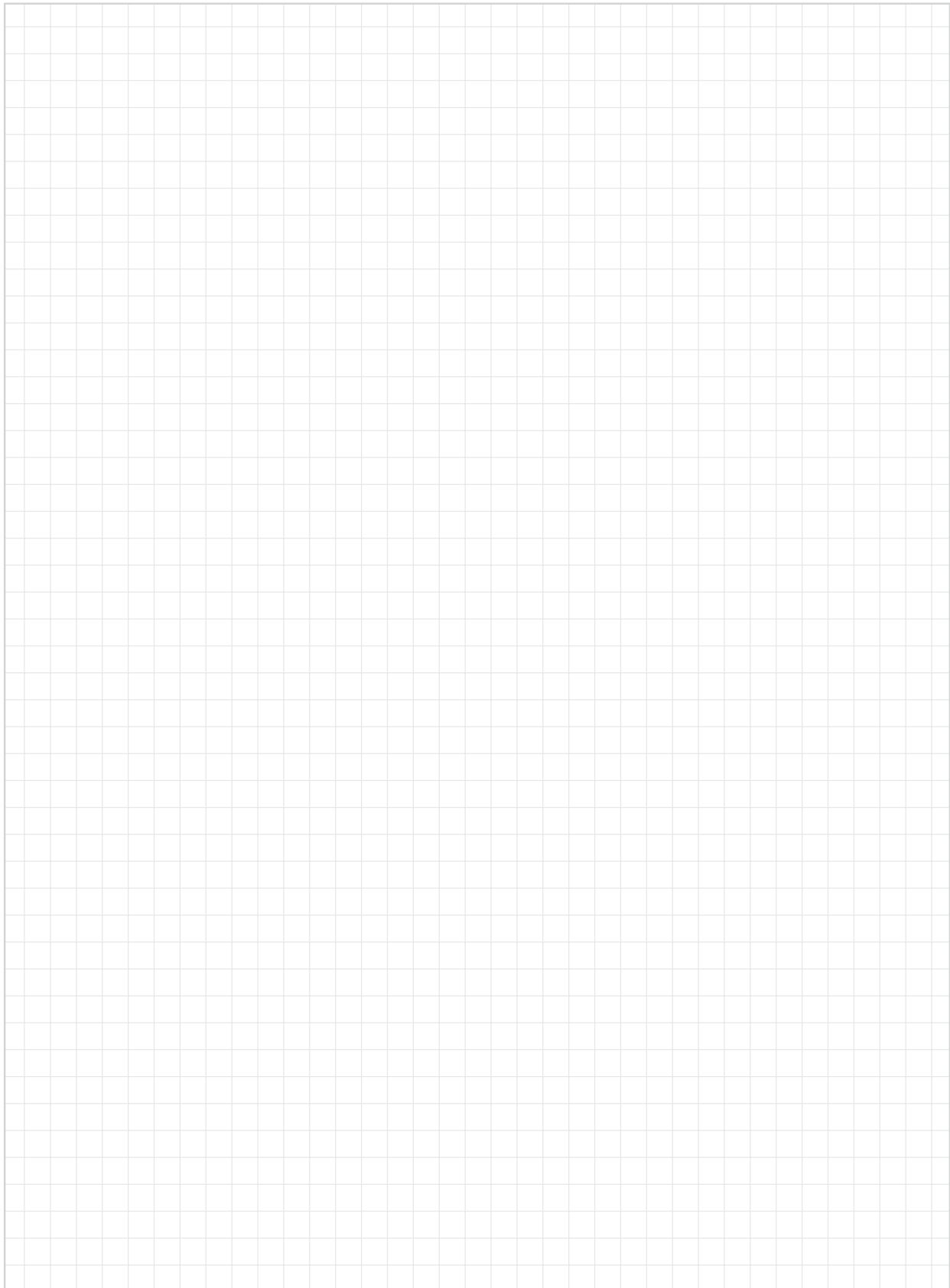
For tolerance values
please refer to page 463

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3 d13	b1 h13	b2 -0.14	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
A500FM-4044-40	40.0	44.0	52.0	40.0	2.0	40.025	40.125	44.000	44.025	39.938	40.000
A500FM-4550-50	45.0	50.0	58.0	50.0	2.5	45.025	45.125	50.000	50.025	44.938	45.000

Notes





iglide® A160

- Compliant with EC Directive 10/2011 EC
- FDA compliant
- Temperature resistant from -58°F to 194°F
- High chemical resistance

iglide®
A160

iglide® A160 - FDA and EC Directive compliant

FDA compliant

Compliant with EC
Directive 10/2011 EC
FDA compliant

High media resistance

Low priced

Self-lubricating and
maintenance-free

iglide® A160 offers maximum media resistance in the medium temperature range and is a true low-cost iglide® material. The properties of iglide® A160 makes it suitable for applications in the food industry.



- When a bearing with maximum media resistance is required at ambient temperatures
- When a very cost effective bearing with high media resistance is required
- When a material compliant with the 10/2011 EC is required



- When the universal material for the food industry is required
 - iglide® A180
 - iglide® A181
- When a very media-resistant bearing is required for applications at more than 194°F
 - iglide® A500
 - iglide® T500
- When a low-cost material with high wear resistance is required for dry running
 - iglide® R



iglide® A160 material complies with EC Directive 10/2011 EC and also with FDA (Food and Drug Administration) specifications for repeated contact with food.



Available from stock

Detailed information about delivery time online.



max. +194°F
min. -58°F



Price breaks online

No minimum order.



Ø 6 to 20 mm
more dimensions on request



Typical application areas

- Food industry
- Beverage technology
- Medical etc.

iglide® A160 - Technical Data

 iglide®
A160

Material Properties Table

General Properties	Unit	iglide® A160	Testing Method
Density	g/cm ³	1.00	
Color		blue	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.1	DIN 53495
Max. moisture absorption	% weight	0.1	
Coefficient of friction, dynamic against steel	μ	0.09 - 0.19	
pv value, max. (dry)	psi x fpm	7,800	

Mechanical Properties	Unit	iglide® A160	Testing Method
Modulus of elasticity	psi	166,900	DIN 53457
Tensile strength at 68°F	psi	2,756	DIN 53452
Compressive strength	psi	5,366	
Permissible static surface pressure (68°F)	psi	2,176	
Shore D-hardness		60	DIN 53505

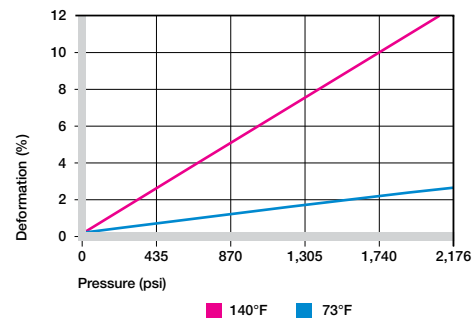
Physical and Thermal Properties	Unit	iglide® A160	Testing Method
Max. long-term application temperature	°F	194	
Max. application temperature, short-term	°F	212	
Min. application temperature	°F	-58	
Thermal conductivity	W/m x K	0.30	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	11	DIN 53752

Electrical Properties	Unit	iglide® A160	Testing Method
Specific volume resistance	Ωcm	> 10 ¹²	DIN IEC 93
Surface resistance	Ω	> 10 ¹²	DIN 53482

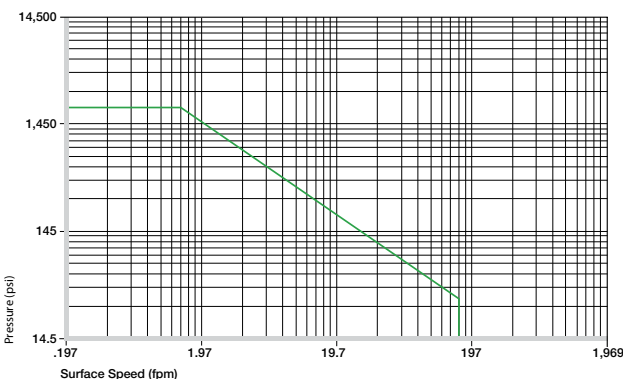
Compressive Strength

With increasing temperatures, the compressive strength of iglide® A160 plain bearings decreases. The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® A160 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® A160 was developed for low surface speeds. Maximum speeds up to 98 fpm (rotating) and 393 fpm (linear) respectively are permitted for continuous application in dry operation.

The given values indicate the limits at which an increase up to the continuous permissible temperature occurs. This increase is a result of friction. In practice, this temperature level is rarely reached, due to varying application conditions.

► Surface speed, Page 64

► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	98	137
Oscillating	78	118
Linear	393	590

Maximum surface speeds

iglide®
A160

iglide® A160 - Technical Data

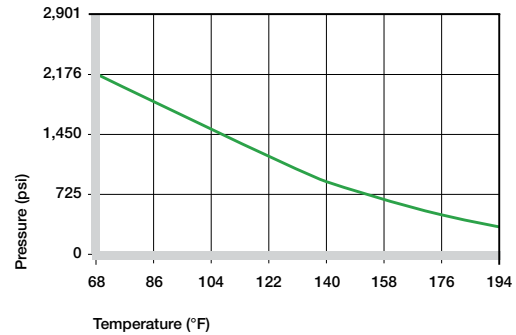
Temperatures

With increasing temperatures, the compressive strength of iglide® A160 plain bearings decreases. The diagram shows this inverse relationship. The temperatures prevailing in the bearing system also have an influence on the bearing wear. At temperatures over +140°F an additional securing is required.

► Application temperatures, Page 67

iglide® A160	Application Temperature
Minimum	-58°F
Max. long-term	+194°F
Max. short-term	+212°F
Additional axial securing	+140°F

Temperature iglide® A160



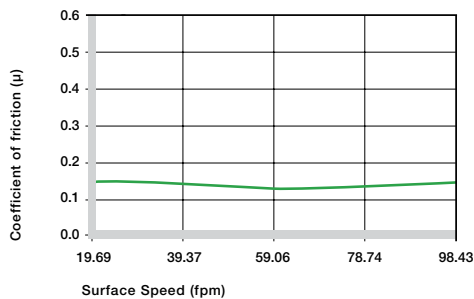
Recommended maximum surface pressure of iglide® A160 as a function of the temperature (2,176 psi at 68°F)

Friction and Wear

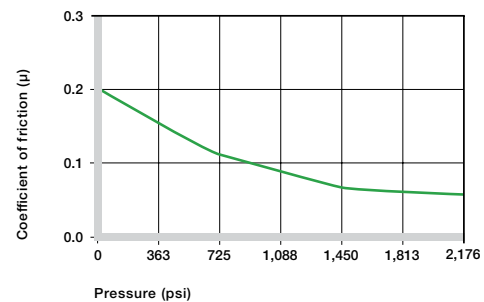
Coefficient of friction and wear resistance alter with the application parameters. For iglide® A160 bearings, a slight variation of the coefficient of friction μ depends on surface speed and the shaft surface finish. With increasing load, the coefficient of friction is reduced. In the Ra range between 0.6 and 0.7 μm , the coefficient of friction attains the optimum value.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® A160 as a function of the running speed; p = 145 psi



Coefficients of friction of iglide® A160 as a function of the load, v = 1.96 fpm

iglide® A160	Coefficient of Friction
Dry	0.09 - 0.19
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® A160 against steel (Shaft finish = 40 rms, 50 HRC)

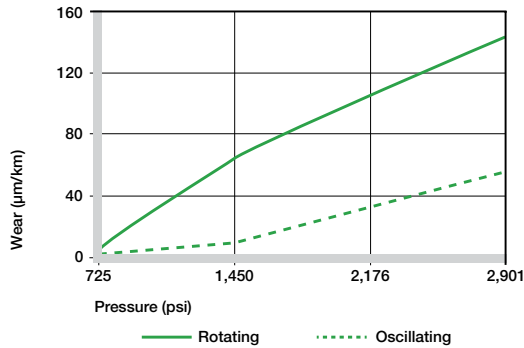
iglide® A160 - Technical Data

iglide®
A160

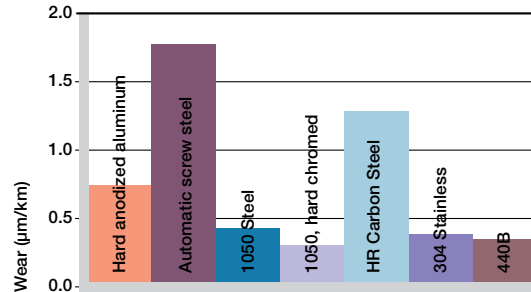
Shaft Materials

The graphs illustrate the results of testing different shaft materials in combination with iglide® A160 bearings, running without external lubrication. For rotating applications with low loads, the best shaft materials for media and corrosion resistance, 440 and 304 stainless steel, as well as hard-chrome-plated steel prove to be the best counter-materials. However, on 440 stainless steel shafts, the wear rate increases quickly as loads increase. With case hardened steel shafts, wear rates in oscillating applications is exemplary when compared to rotating applications. As shown in the graph below, in rotating applications, wear rates of a range of iglide® materials are higher than those found in oscillating applications.

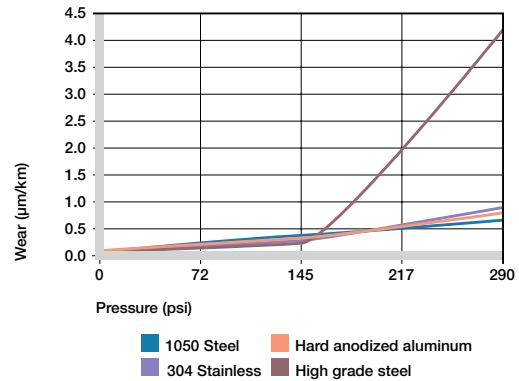
► Shaft Materials, Page 71



Wear with different shaft materials, oscillating and rotating movement p = 290 psi



Wear of iglide® A160, rotating applications with different shaft materials, p=108 psi, v=98 fpm

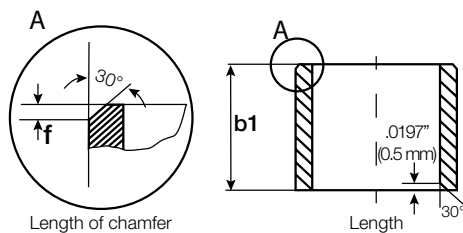


Wear with different shaft materials in rotational operation, as a function of the pressure

Installation Tolerances

iglide® A160 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance & Moisture Absorption

iglide® A160 bearings can be used under various environmental conditions and in contact with numerous chemicals.

The moisture absorption of iglide® A160 bearings is approximately 0.1% in standard atmosphere. The saturation limit submerged in water is approximately 0.1%.

► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon, chlorinated	+
Greases, oils without additives	+
Fuels	+ to 0
Weak acids	+
Strong acids	+
Weak alkaline	+
Strong alkaline	+

+ resistant, 0 conditionally resistant, – not resistant

Chemical resistance of iglide® A160

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364

Radiation Resistance

Plain bearings made from iglide® A160 are resistant to radiation up to an intensity of 1×10^5 Gy. Higher radiation levels affect the material and can result in the loss of essential mechanical properties.

UV-Resistance

iglide® A160 plain bearings are partially resistant to the impact of UV radiation.

Vacuum

In a vacuum environment, iglide® A160 plain bearings release moisture as a vapor. Therefore only dehumidified bearings are suitable in a vacuum environment.

Electrical Properties

iglide® A160 plain bearings are electrically insulating.

iglide® A160

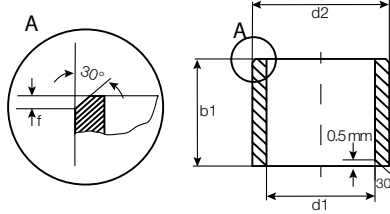
Specific volume resistance	$> 10^{12} \Omega\text{cm}$
Surface resistance	$> 10^{12} \Omega$

Electrical properties of iglide® A160

iglide® A160 - Product Range

Sleeve bearing - Metric

iglide®
A160



Order key

Type	Dimensions
A160 S	M-06 08-06

iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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For tolerance values
please refer to page 475

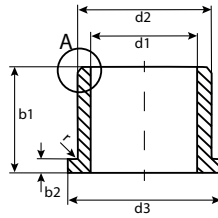
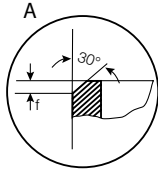
Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
A160SM-0608-06	6.0	8.0	6.0	6.020	6.068	8.000	8.015	5.970	6.000
A160SM-0810-10	8.0	10.0	10.0	8.025	8.083	10.000	10.015	7.964	8.000
A160SM-1012-10	10.0	12.0	10.0	10.025	10.083	12.000	12.018	9.964	10.000
A160SM-1214-12	12.0	14.0	12.0	12.032	12.102	14.000	14.018	11.957	12.000
A160SM-1618-15	16.0	18.0	15.0	16.032	16.102	18.000	18.018	15.957	16.000
A160SM-2023-20	20.0	23.0	20.0	20.040	20.124	23.000	23.021	19.948	20.000

iglide®
 A160

iglide® A160 - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
A160 F M	-06 08-06

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
------------------	-----------------	--------	-----------------	-----------------	----------------

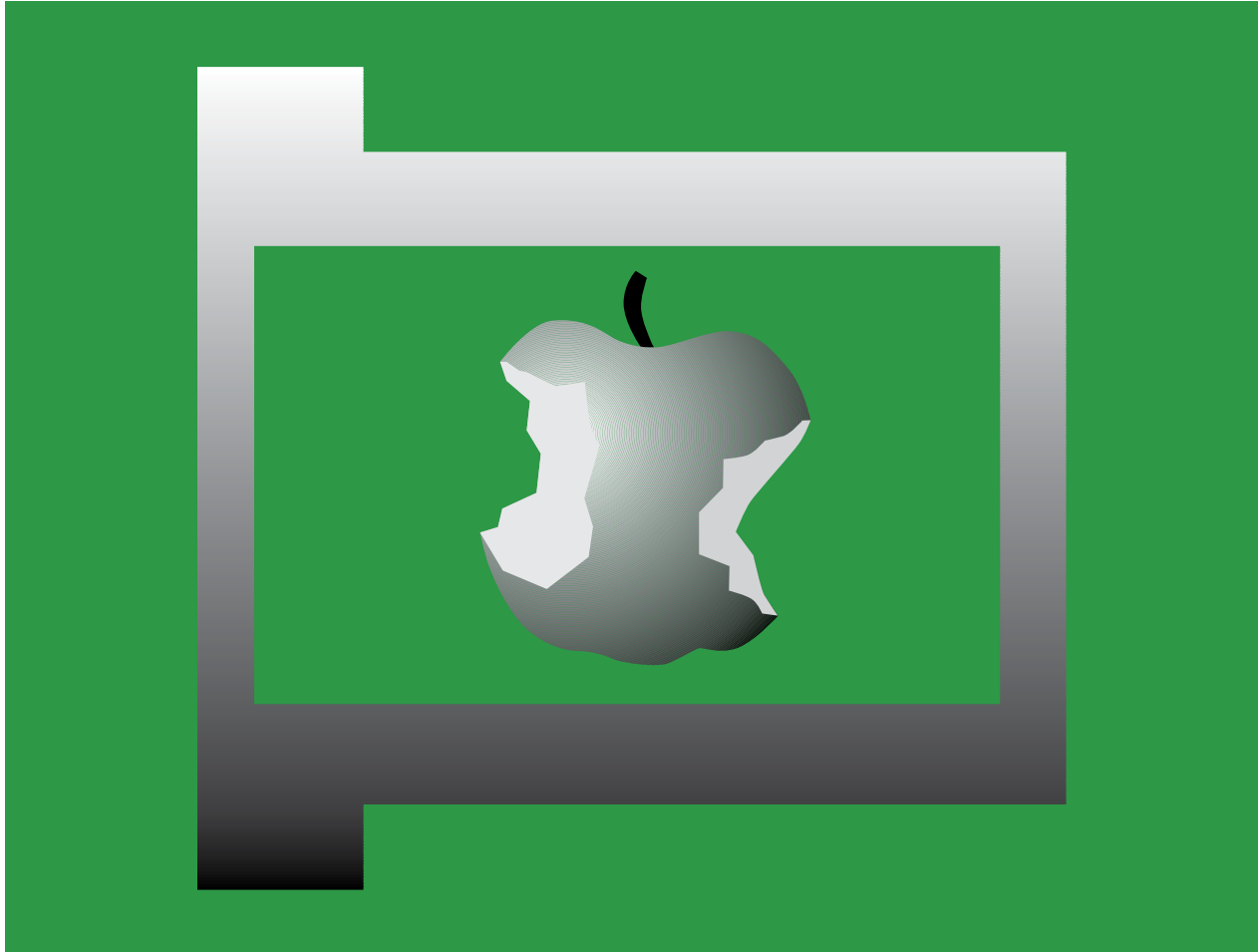
 $r = \max. 0.5$

 For tolerance values
 please refer to page 475

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
A160FM-0608-06	6.0	8.0	12.0	6.0	1.0	6.020	6.068	8.000	8.012	5.970	6.000
A160FM-0810-10	8.0	10.0	15.0	10.0	1.0	8.025	8.083	10.000	10.015	7.964	8.000
A160FM-1012-10	10.0	12.0	18.0	10.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
A160FM-1214-12	12.0	14.0	20.0	12.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
A160FM-1618-17	16.0	18.0	24.0	17.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
A160FM-2023-21	20.0	23.0	30.0	21.5	1.5	20.040	20.124	23.000	23.021	19.948	20.000



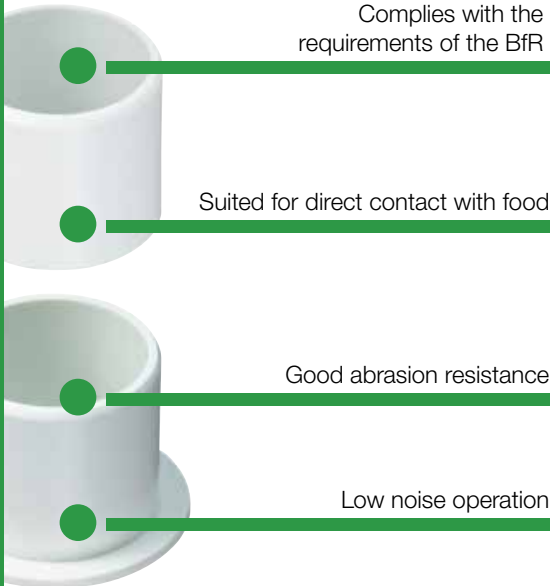
iglide® A290

- Complies with the requirements of the BfR
- For direct contact with food
- Good abrasion resistance

iglide®
A290

iglide® A290 - Robust

Good abrasion resistance



iglide® A290 bearings comply with the requirements of the BfR for contact with food. For medium and high loads.



- When your bearing comes in direct contact with food
- For low speeds
- When quiet operation is important
- When good abrasion resistance is needed
- When very good mechanical properties are required
- When a physiologically safe bearing is needed



- When FDA compliance is required
 - iglide® A181
 - iglide® A350
 - iglide® A500
- When the highest wear resistance is required
 - iglide® L280
- When temperatures are continuously greater than 284°F
 - iglide® A350
 - iglide® A500
 - iglide® H
 - iglide® T500
- When a cost-effective universal bearing is required
 - iglide® G300

BfR

iglide® A290 material complies with the requirements of the BfR for contact with food.



Available from stock

Detailed information about delivery time online.



max. +284°F
min. -40°F



Price breaks online

No minimum order.



Ø 3 to 50 mm
more dimensions on request



Typical application areas

- Food industry

iglide® A290 - Technical Data

 iglide®
A290

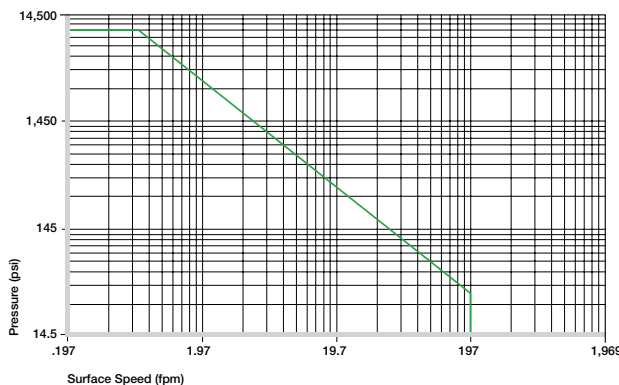
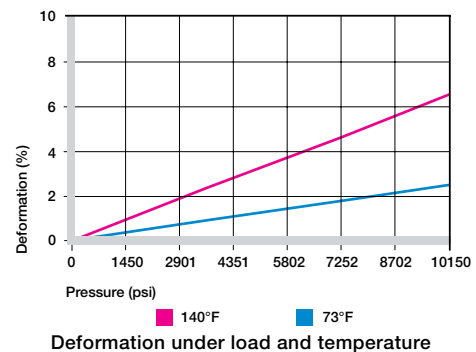
Material Properties Table

General Properties	Unit	iglide® A290	Testing Method
Density	g/cm ³	1.41	
Color		white	
Max. moisture absorption at 73°F / 50% r.h.	% weight	1.7	DIN 53495
Max. moisture absorption	% weight	7.3	
Coefficient of friction, dynamic against steel	μ	0.13 - 0.40	
pv value, max. (dry)	psi x fpm	6,600	
Mechanical Properties			
Modulus of elasticity	psi	1,276,000	DIN 53457
Tensile strength at 68°F	psi	32,260	DIN 53452
Compressive strength	psi	13,200	
Permissible static surface pressure (68°F)	psi	10,150	
Shore D-hardness		88	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	284	
Max. application temperature, short-term	°F	356	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	7	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	< 10 ¹¹	DIN IEC 93
Surface resistance	Ω	< 10 ¹¹	DIN 53482

Compressive Strength

iglide® A290 plain bearings have a recommended maximum surface pressure of 10,150 psi. At this load, the deformation at room temperature is only 2.5%. Plastic deformation is close to zero up to this load. However, it is also affected by the cycle time.

► Compressive strength, Page 63



Permissible pv values for iglide® A290 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® A290 is suitable for low surface speeds. Because of the relatively high friction rate in the low load range, plain bearings made of iglide® A290 heat up more than other bearings. At high speed, the friction additionally increases.

► Surface speed, Page 64
 ► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	196	393
Oscillating	137	275
Linear	590	787

Maximum surface speeds

iglide®
A290

iglide® A290 - Technical Data

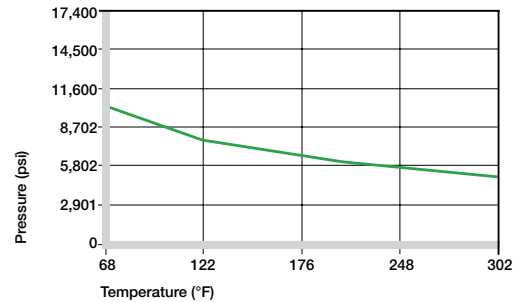
Temperatures

The maximum permissible short-term temperature is 356°F. With an increase in temperature, the compressive strength of iglide® A290 plain bearings decreases. The graph shows this relationship. The ambient temperatures prevalent in the bearing system also have an effect on wear. With rising temperatures, an increase in wear results. From temperatures of 248°F, this effect becomes significant.

► Application temperatures, Page 67

iglide® A290	Application Temperature
Minimum	-40°F
Max. long-term	+284°F
Max. short-term	+356°F
Additional axial securing	+230°F

Temperature iglide® A290

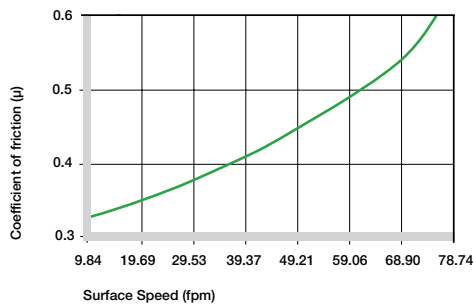


Recommended maximum permissible static surface pressure of iglide® A290 as a result of the temperature

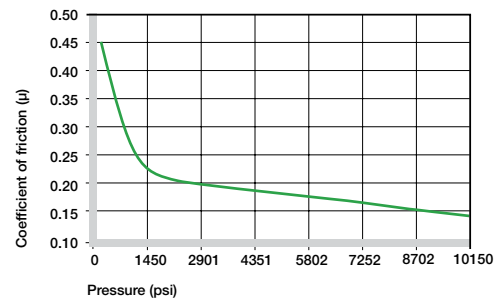
Friction and Wear

Coefficient of friction alters like the wear resistance with increasing load and surface speed.

► Coefficients of friction and surfaces, Page 68
 ► Wear resistance, Page 69



Coefficients of friction of iglide® A290 as a function of the running speed; p = 108 psi



Coefficients of friction of iglide® A290 as a function of the load, v = 1.96 fpm

iglide® A290	Coefficient of Friction
Dry	0.13 - 0.40
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® A290 against steel (Shaft finish = 40 rms, 50 HRC)

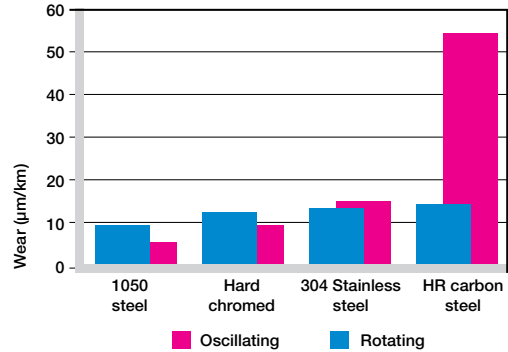
iglide® A290 - Technical Data

iglide®
A290

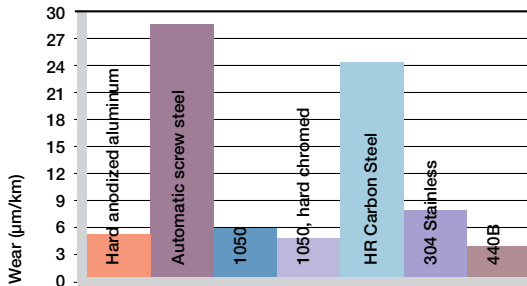
Shaft Materials

The graphs show the results of testing different shaft materials with iglide® A290 plain bearings. The improved tribological properties compared to iglide® A200 are also reflected in the wear values. For low loads, the differences in wear resistance for iglide® A290 with different shaft materials is very pronounced. The graph shows that with increasing loads, the advantage of hard chromed shafts increases. Hard chromed shafts are also well suited for oscillating applications, frequently found in packaging machines. Other hardened surfaces are also recommended for oscillating movements, for example 1050 hardened and ground steel.

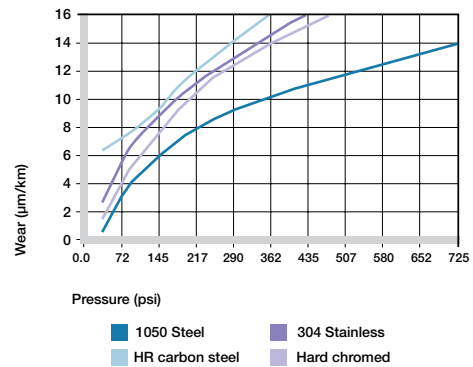
► Shaft Materials, Page 71



Wear with different shaft materials, oscillating and rotating movement p = 290 psi



Wear of iglide® A290, rotating applications with different shaft materials, p=108 psi, v=98 fpm

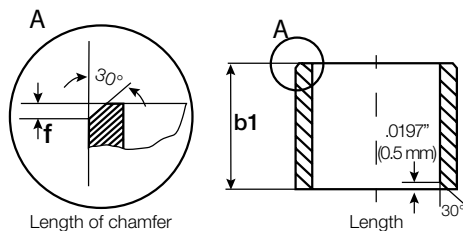


Wear of iglide® A290 with different shaft materials in rotational applications

Installation Tolerances

iglide® A290 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance & Moisture Absorption

iglide® A290 plain bearings have a good chemical resistance. They are resistant to most lubricants. iglide® A290 is also resistant to most weak organic and inorganic acids.

The moisture absorption of iglide® A290 bearings is approximately 1.7% in standard atmosphere. The saturation limit in water is 7.3%. This is a disadvantage that must be taken into account with regard to applications in moist or wet environments. If you have questions concerning the tolerances in wet applications, please contact us.

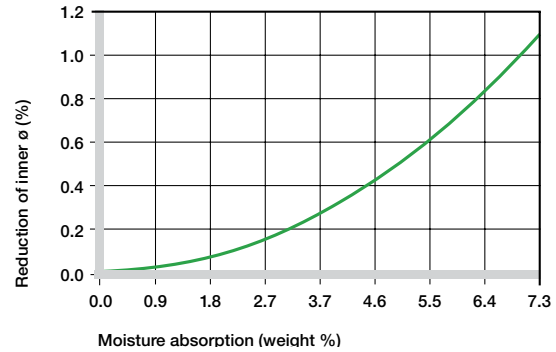
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+ to 0
Hydrocarbon, chlorinated	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to -
Strong acids	-
Weak alkaline	+
Strong alkaline	+ to 0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® A290

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® A290 plain bearings

Radiation Resistance

Plain bearings made from iglide® A290 are resistant to radiation up to an intensity of 3×10^2 Gy.

UV-Resistance

iglide® A290 is partially resistant to UV radiation, certain tribological properties can be affected.

Vacuum

In a vacuum environment, iglide® A290 plain bearings have limited use due to the high moisture absorption.

Electrical Properties

iglide® A290 plain bearings are electrically insulating.

iglide® A290

Specific volume resistance	> 10^{11} Ωcm
Surface resistance	> 10^{11} Ω

Electrical properties of iglide® A290



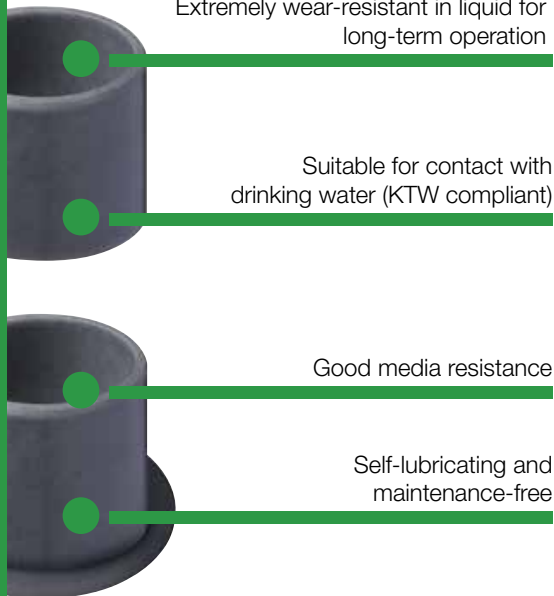
iglide® UW160

- Extremely wear-resistant in liquid for long-term operation
- Suitable for contact with drinking water (KTW compliant)
- Good media resistance

iglide®
UW160

iglide® UW160 - For contact with drinking water

KTW compliant



Extremely wear-resistant in liquid for long-term operation

Suitable for contact with drinking water (KTW compliant)

Good media resistance

Self-lubricating and maintenance-free

iglide® UW160 is optimized for continuous operation while submerged in liquid media.



- When a KTW compliant material is required
- When a wear-resistant material is required for continuous use in liquid media



- When a media resistant plain bearing for dry operation is required
➤ iglide® A160
- When a media and temperature resistant universal bearing is required
➤ iglide® T500
- When a standard bearing for use in wet environment is required
➤ iglide® P



Available from stock

Detailed information about delivery time online.



max. +194°F
min. -58°F



Price breaks online

No minimum order.



Ø 3 to 10 mm
more dimensions on request



Typical application areas

- Fluid engineering
- Pumps
- Water meters etc.

iglide® UW160 - Technical Data

 iglide®
 UW160

Material Properties Table

General Properties	Unit	iglide® UW160	Testing Method
Density	g/cm ³	1.04	
Color		gray	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.1	DIN 53495
Max. moisture absorption	% weight	0.1	
Coefficient of friction, dynamic against steel	μ	0.17 - 0.31	
pv value, max. (dry)	psi x fpm	6,250	

Mechanical Properties	Unit	iglide® UW160	Testing Method
Modulus of elasticity	psi	195,700	DIN 53457
Tensile strength at 68°F	psi	3,191	DIN 53452
Compressive strength	psi	4,461	
Permissible static surface pressure (68°F)	psi	2,176	
Shore D-hardness		60	DIN 53505

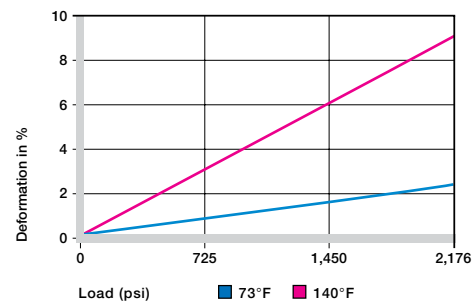
Physical and Thermal Properties	Unit	iglide® UW160	Testing Method
Max. long-term application temperature	°F	194	
Max. application temperature, short-term	°F	212	
Min. application temperature	°F	-58	
Thermal conductivity	W/m x K	0.50	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	18	DIN 53752

Electrical Properties	Unit	iglide® UW160	Testing Method
Specific volume resistance	Ωcm	> 10 ¹²	DIN IEC 93
Surface resistance	Ω	> 10 ¹²	DIN 53482

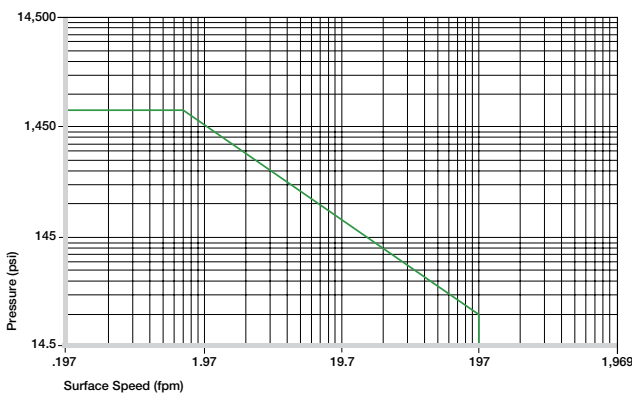
Compressive Strength

With increasing temperatures, the compressive strength of iglide® UW160 plain bearings decreases. The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® UW160 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

The maximum allowable sliding speed is based on the friction heat generated at the bearing surface. The temperature should only be permitted to increase to a value that will ensure a sustainable use of the bearing with respect to wear and dimensional integrity.

The maximum values specified in table 03 are for the dry operation. In media-based application, sometimes significantly higher speeds are achieved due to reduced heat generation depending on the environment.

► Surface speed, Page 64

► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	59	98
Oscillating	59	78
Linear	197	492

Maximum surface speeds

Temperatures

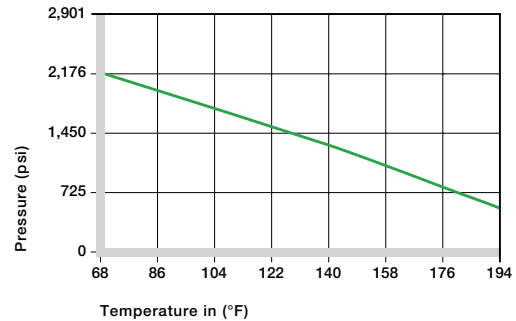
iglide® UW160 was developed for use in liquid media in normal and medium temperature range.

As with all thermoplastics, the compression resistance of iglide® UW160 decreases with increasing temperature. The occurring temperatures in the bearing system also have an effect on the bearing wear. The wear rate rises with increasing temperatures. At temperatures over +158 °F an additional securing is required.

► Application temperatures, Page 67

iglide® UW160	Application Temperature
Minimum	-58°F
Max. long-term	+194°F
Max. short-term	+212°F
Additional axial securing	+158°F

Temperature iglide® UW160



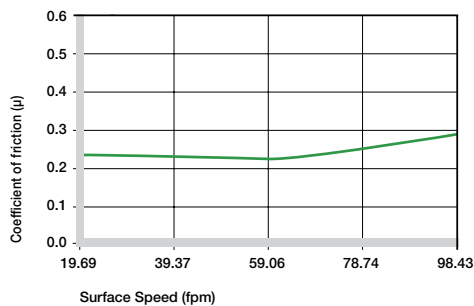
Recommended maximum surface pressure of as a function of temperature (2,176 psi at +68 °F)

Friction and Wear

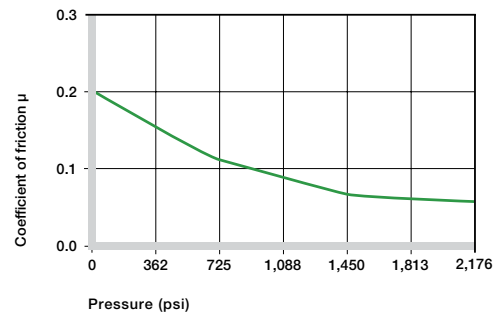
Coefficient of friction and wear resistance alter with the application parameters. The influence of surface speed and surface finish of the shaft on the friction coefficient is low, but with increasing radial load the coefficient of friction decreases significantly, mainly in the range of up to 1,088 psi.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® UW160 as a function of the running speed; p = 145 psi



Coefficients of friction of iglide® UW160 as a function of the load, v = 1.96 fpm

iglide® UW160	Coefficient of Friction
Dry	0.17 - 0.31
Grease	0.08
Oil	0.03
Water	0.03

Coefficient of friction of iglide® UW160 against steel
(Shaft finish = 40 rms, 50 HRC)

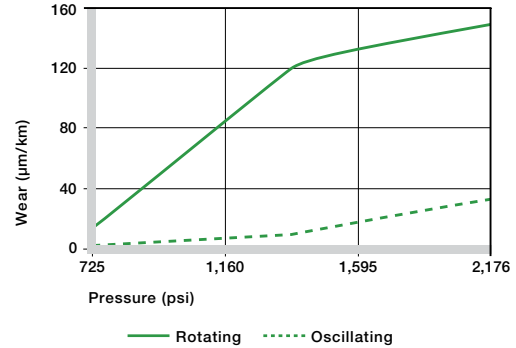
iglide® UW160 - Technical Data

iglide®
UW160

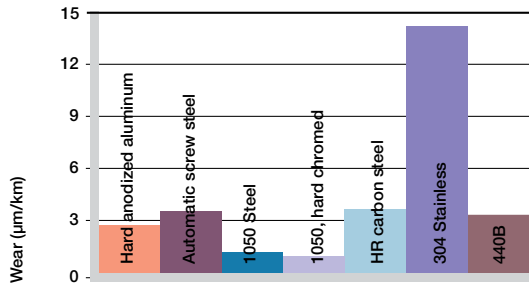
Shaft Materials

The graphs show the test results of iglide® UW160 bearings running against various shaft materials. In the example of a rotational movement with radial loads of 145 psi and a speed of 59 fpm, it becomes clear that iglide® UW160 achieves good wear values with a variety shafts except for 304 stainless steel. It is also clear that there are better iglide® materials for dry running. As with many other iglide® materials in dry running the graph shows the significantly higher wear in rotation than in pivoting with otherwise identical parameters.

► Shaft Materials, Page 71



Wear of iglide® UW160 with different shaft materials in rotational applications

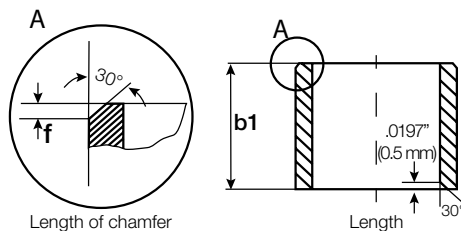


Wear of iglide® UW160, rotating applications with different shaft materials, p = 145 psi, v = 59 fpm

Installation Tolerances

iglide® UW160 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance & Moisture Absorption

iglide® UW160 plain bearings have superior resistance to chemicals. Most organic and inorganic acids, as well as alkalis and lubricants do not attack iglide® UW160.

The humidity absorption of iglide® UW160 bearings amounts to about 0.1% in standard atmosphere. The saturation limit in water is likewise only at 0.1%.

► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon, chlorinated	+
Greases, oils without additives	+
Fuels	+
Weak acids	+ to 0
Strong acids	+
Weak alkaline	+
Strong alkaline	+

+ resistant, 0 conditionally resistant, – not resistant

Chemical resistance of iglide® UW160

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364

Radiation Resistance

Plain bearings made of iglide® UW160 are resistant to radiation up to an intensity of $3 \cdot 10^2$ Gy.

UV-Resistance

iglide® UW160 bearings are only conditionally resistant to UV rays.

Vacuum

In a vacuum environment, existing moisture will outgas. For this reason only, the dry iglide® UW160 bearings are suitable for vacuum.

Electrical Properties

iglide® UW160 plain bearings are electrically insulating.

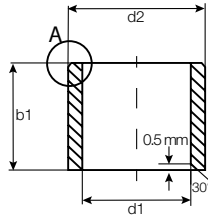
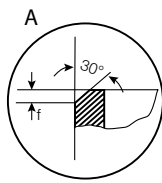
iglide® UW160	
Specific volume resistance	> 10^{12} Ωcm
Surface resistance	> 10^{12} Ω

Electrical properties of iglide® UW160

iglide® UW160 - Product Range

Sleeve bearing - Metric

iglide®
UW160



Order key

Type	Dimensions
UW160 S M	-06 08-06
iglide® material	Form S (sleeve)
	Metric
	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

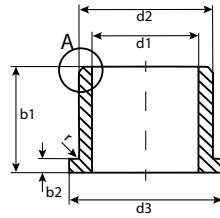
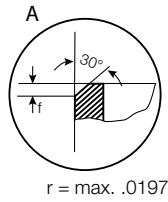
For tolerance values
please refer to page 489

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
UW160SM-0304-03	3.0	4.5	3.0	3.014	3.054	4.500	4.512	2.975	3.000
UW160SM-0405-04	4.0	5.5	4.0	4.020	4.068	5.500	5.512	3.970	4.000
UW160SM-0507-05	5.0	7.0	5.0	5.020	5.068	7.000	7.015	4.970	5.000
UW160SM-0608-06	6.0	8.0	6.0	6.020	6.068	8.000	8.015	5.970	6.000
UW160SM-0810-10	8.0	10.0	10.0	8.025	8.083	10.000	10.015	7.964	8.000
UW160SM-1012-10	10.0	12.0	10.0	10.025	10.083	12.000	12.018	9.964	10.000

iglide®
UW160

iglide® UW160 - Product Range

Flange bearing - Metric



For tolerance values
please refer to page 489



Order key

Type	Dimensions
UW160 F M -02 03-02	
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
UW160FM-0304-05	3.0	4.5	7.5	5.0	0.75	3.014	3.054	4.500	4.512	2.975	3.000
UW160FM-0405-06	4.0	5.5	9.5	6.0	0.75	4.020	4.068	5.500	5.512	3.970	4.000
UW160FM-0507-07	5.0	7.0	11.0	7.0	1.0	5.020	5.068	7.000	7.015	4.970	5.000
UW160FM-0608-06	6.0	8.0	12.0	6.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
UW160FM-0810-10	8.0	10.0	15.0	10.0	1.0	8.025	8.083	10.000	10.015	7.964	8.000
UW160FM-1012-10	10.0	12.0	18.0	10.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000



iglide® T220

- Free of unwanted components as requested by manufacturers of tobacco products
- iglide® T220 material complies with FDA regulations

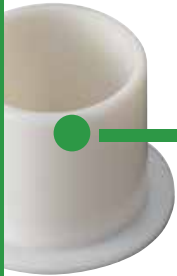
iglide®
T220

iglide® T220 - For the tobacco industry

FDA compliant



Free of unwanted
components as requested
by manufacturers
of tobacco products



Complies with
FDA regulations

iglide® T220 material meets the requirements for use in the tobacco processing industry. The material is free from carcinogenic additives such as PTFE.



- When bearings need to be free of substances that are not permitted for applications in the tobacco industry
- If FDA compliance is necessary



- When high surface pressure occurs
 - iglide® Z
- When a cost-effective universal bearing is required
 - iglide® G300
 - iglide® M250
- When highest wear resistance and low pressure load is necessary
 - iglide® J
- If the bearing should be free solely from PTFE and silicon
 - iglide® R



iglide® T220 material with FDA (Food and Drug Administration) specifications for repeated contact with food.



Available on request

Detailed information about delivery time online.



max. +212°F
min. -40°F



Order dependent



Contact igus®

Sizes available upon request



Typical application areas

- Tobacco processing industry

iglide® T220 - Technical Data

 iglide®
T220

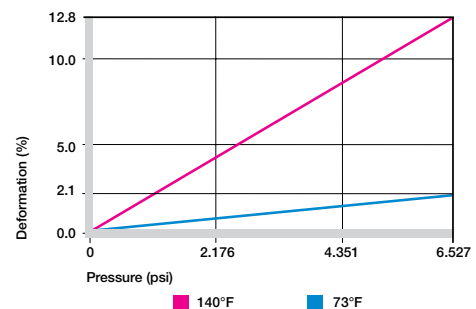
Material Properties Table

General Properties	Unit	iglide® T220	Testing Method
Density	g/cm ³	1.28	
Color		white	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.3	DIN 53495
Max. moisture absorption	% weight	0.5	
Coefficient of friction, dynamic against steel	μ	0.20 - 0.32	
pv value, max. (dry)	psi x fpm	8,000	
Mechanical Properties			
Modulus of elasticity	psi	261,100	DIN 53457
Tensile strength at 68°F	psi	9,427	DIN 53452
Compressive strength	psi	7,977	
Permissible static surface pressure (68°F)	psi	5,802	
Shore D-hardness		76	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	212	
Max. application temperature, short-term	°F	320	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	11	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹⁰	DIN IEC 93
Surface resistance	Ω	> 10 ¹⁰	DIN 53482

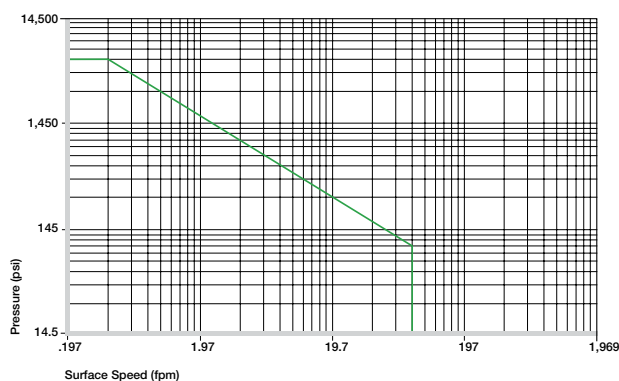
Compressive Strength

iglide® T220 plain bearings can be stressed to the permissible limit of 6,527 psi. The load, however, has an impact on the wear of the bearings. The permissible load is further limited by increasing temperatures.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® T220 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

The maximum speed of iglide® T220 plain bearings in continuous rotation is 78 fpm. The frictional heat generated define the permissible speeds. Because of this intermittent service and linear movements, higher speeds can be attained.

► Surface speed, Page 64
 ► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	78	196
Oscillating	59	137
Linear	196	393

Maximum surface speeds

iglide®
T220

iglide® T220 - Technical Data

Temperatures

iglide® T220 plain bearings can be continuously used up to 212°F. Temporarily, temperatures up to 320°F are permissible. The elasticity of the bearings depends on the temperature. 140°F already results in a clear increase in elasticity. Usually iglide® T220 bearings will need to be mechanically secured in the housing when being used at temperatures over 140°F. Please contact us if you have questions concerning the plain bearings and their use.

► Application temperatures, Page 67

iglide® T220	Application Temperature
Minimum	-40°F
Max. long-term	+212°F
Max. short-term	+320°F
Additional axial securing	+122°F

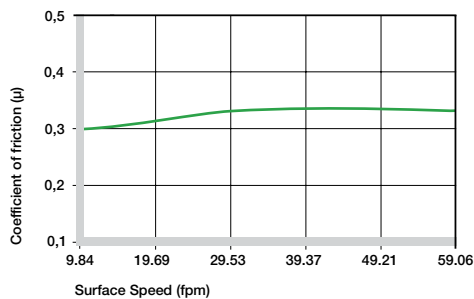
Temperature iglide® T220

Friction and Wear

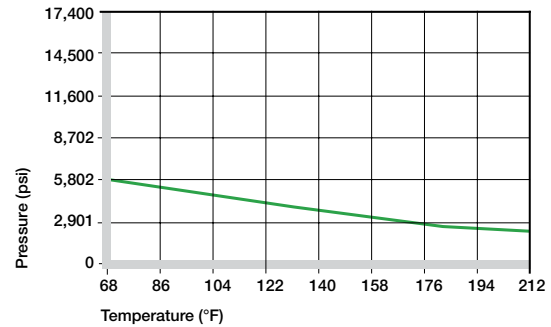
By the observance of the tobacco processing industry specifications, the coefficient of friction and the wear of iglide® T220 remain behind those of the best iglide® bearings. The coefficient of friction decreases with the load and increases with higher speeds.

► Coefficients of friction and surfaces, Page 68

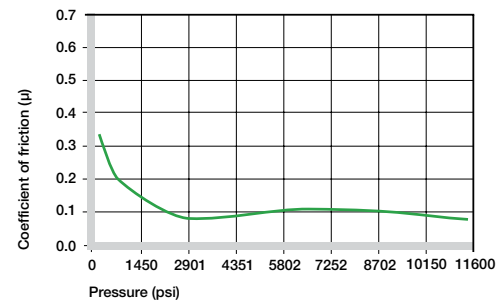
► Wear resistance, Page 69



Coefficients of friction of iglide® T220 as a function of the running speed; $p = 108$ psi



Recommended maximum permissible static surface pressure of iglide® T220 as a result of the temperature



Coefficients of friction of iglide® T220 as a function of the load, $v = 1.96$ fpm

iglide® T220	Coefficient of Friction
Dry	0.20 - 0.32
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® T220 against steel (Shaft finish = 40 rms, 50 HRC)

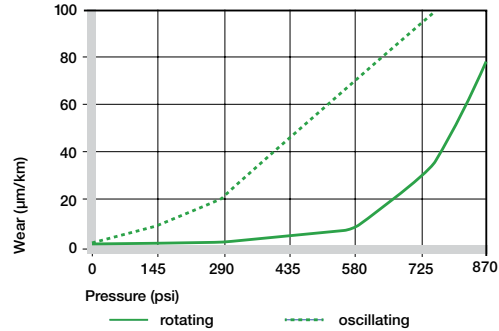
iglide® T220 - Technical Data

iglide®
T220

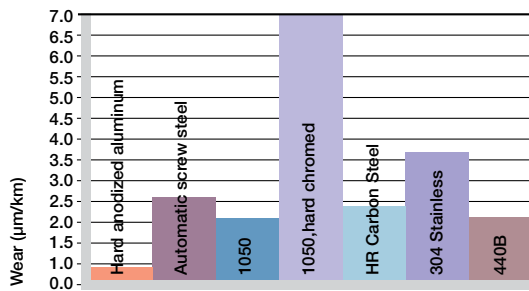
Shaft Materials

The graphs show the wear resistance results of testing different shaft materials with iglide® T220 plain bearings. If recommendations are observed, the service life of a bearing application can be considerably improved. The graph shows that the bearings react with a heavy increase in wear when load is increased. Therefore it should be noted that the load should be kept below 725 psi. (Determined by the dimensions of the bearing.)

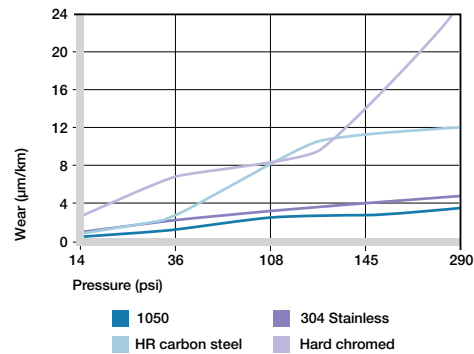
► Shaft Materials, Page 71



Wear with different shaft materials, oscillating and rotating movement p = 290 psi



Wear of iglide® T220, rotating applications with different shaft materials, p=108 psi, v=98 fpm

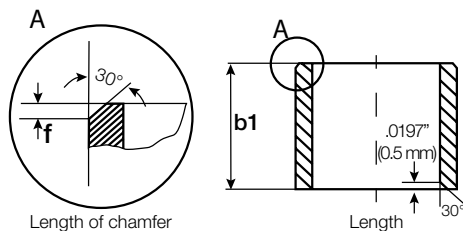


Wear of iglide® T220 with different shaft materials in rotational applications

Installation Tolerances

iglide® T220 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

- Tolerance table, Page 75
- Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		
Length (inches)	Tolerance (h13) (inches)	Length of Chamfer (f) Based on d1
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		
Length (mm)	Tolerance (h13) (mm)	Length of Chamfer (f) Based on d1
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance & Moisture Absorption

iglide® T220 plain bearings are resistant to very diluted alkaline and very weak acids. The moisture absorption of iglide® T220 plain bearings is approximately 0.3% in standard atmosphere. The saturation limit in water is 0.5%. These values are so low that consideration of expansion by moisture is only required under extreme circumstances.

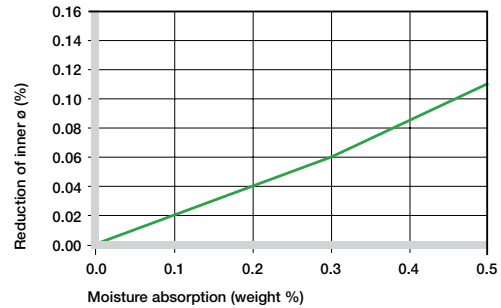
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon, chlorinated	-
Greases, oils without additives	+
Fuels	+
Weak acids	0
Strong acids	-
Weak alkaline	-
Strong alkaline	-

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® T220

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® T220 plain bearings

Radiation Resistance

Plain bearings made from iglide® T220 are radiation resistant up to an intensity of 3×10^2 Gy.

UV-Resistance

iglide® T220 are not resistant to the impact of UV radiation.

Vacuum

Applications in a vacuum are only possible to a limited extent. Only dehumidified iglide® T220 bearings should be tested in a vacuum.

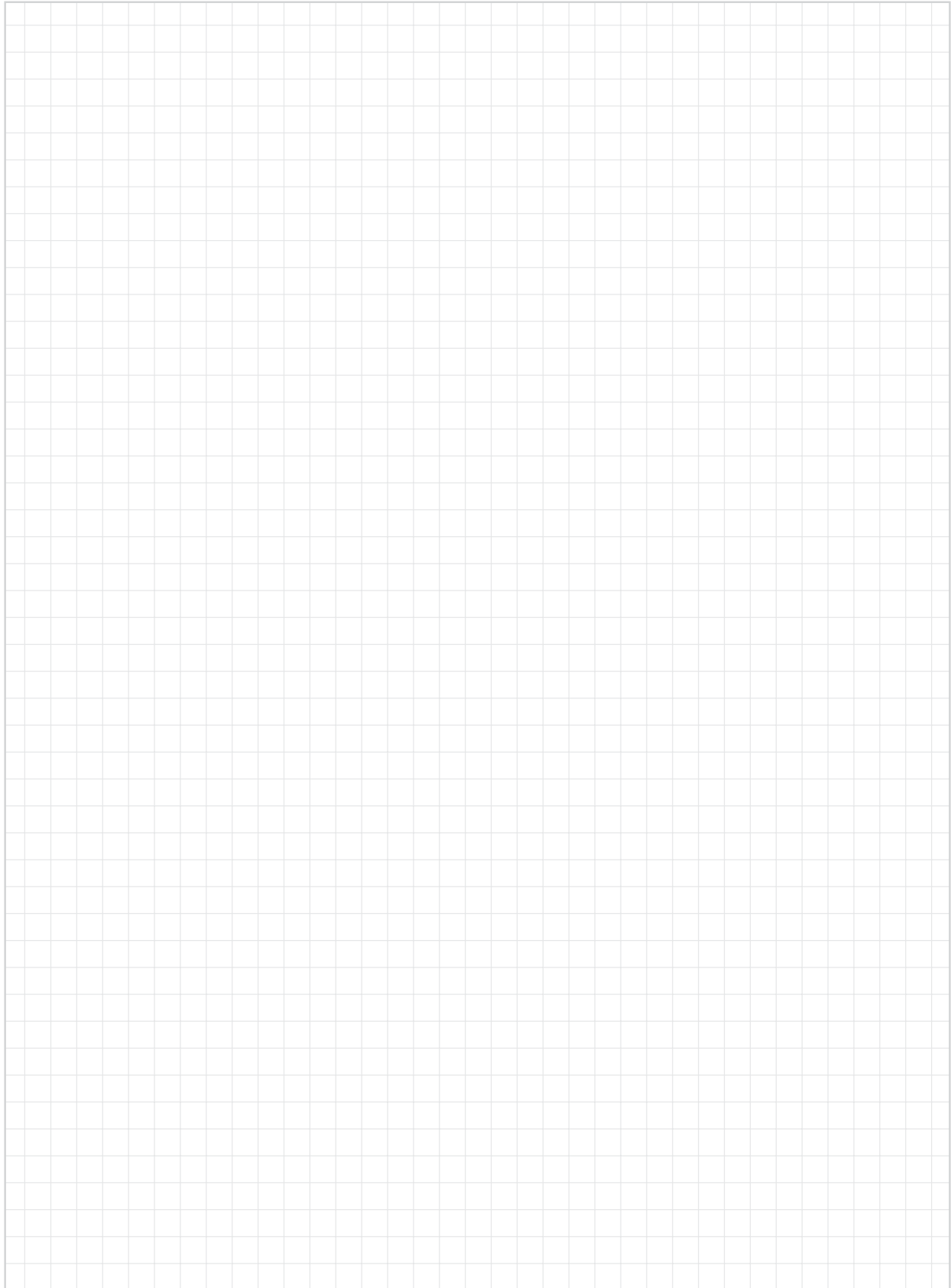
Electrical Properties

iglide® T220 plain bearings are electrically insulating.

iglide® T220	
Specific volume resistance	> 10^{10} Ωcm
Surface resistance	> 10^{10} Ω

Electrical properties of iglide® T220

Notes



iglide® Specialists - Advantages



For high loads –
iglide® Q
► **Page 505**



For extreme loads –
iglide® Q2
► **Page 517**



For heavy duty –
iglide® TX1
► **Page 527**

Applications with high loads

iglide® specialist bearings for high loads combine excellent wear resistance with the ability to withstand high static loads, as well as impacts and edge loads. (High loads = radial surface pressure ranging from approximately 4,351 - 14,500 psi.

Within this group, all individual materials offer specific qualities.

- Self-lubricating and maintenance-free
- Lightweight
- Good price/performance ratio
- Predictable service life



Online product finder
► www.igus.com/iglide-finder



max. +275 °F
min. -76 °F



3 materials



Ø 1/8 to 3 inches
more dimensions on request



Ø 5 to 90 mm
more dimensions on request

iglide® Specialists - Application Examples

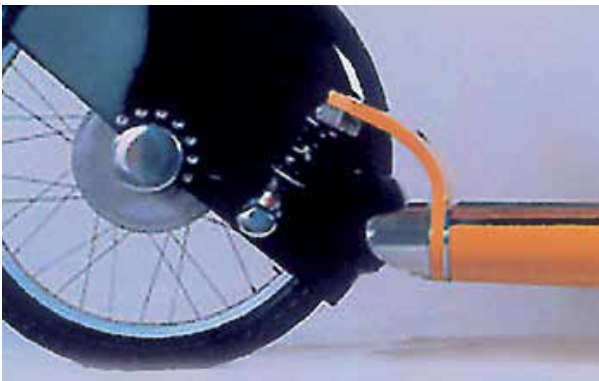
Applications with high loads



iglide® Z thrust washers eliminate the possibility of extreme wear due to dust and humidity in the contact zone of this plating machine's wheels.



Conventional roller ball bearings were replaced with iglide® plain bearings, which are corrosion and dirt resistant.



iglide® Q bearings are able to cope with high loads and pivoting angles, such as those found in this electric scooter.



Rugged plastic plain bearings are used in the pivot points of this agricultural system.



iglide® plain bearings used in this wheel mount and jointed arm are resistant to dirt and humidity, unlike metal bearings.



The plastic plain bearings used in this excavator are able to stand up to the moisture and dirt as the spades are pushed into the soil.

iglide® Bearings - Selection Guide - Main Properties

Applications with high loads



Standard
catalog
range



Bar
stock



speedigus®
material



Long life
in dry
operation



For high
loads



Dirt
resistant



Low
coefficient
of friction



Chemical
resistant

iglide® Q	●			●	●	●	●	
iglide® Q2	●			●	●	●		
iglide® TX1	●			●	●	●		●



Low water
absorption



For under
water use



Edge
pressure



Vibrations
dampening



Food
suitable



Temperatures
up to
+194°F



Temperatures
up to
+302°F

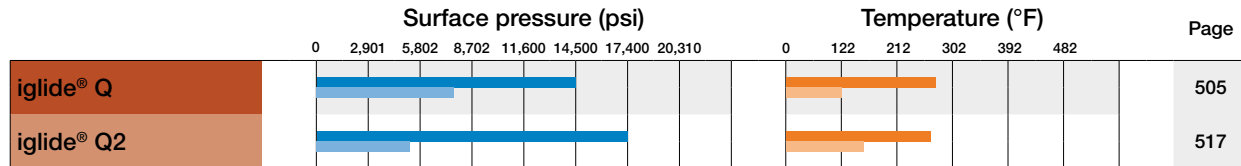


Economic

iglide® Q						●		
iglide® Q2			●	●		●		
iglide® TX1	●	●				●	●	

iglide® Bearings - Selection Guide - Main Properties

Applications with high loads

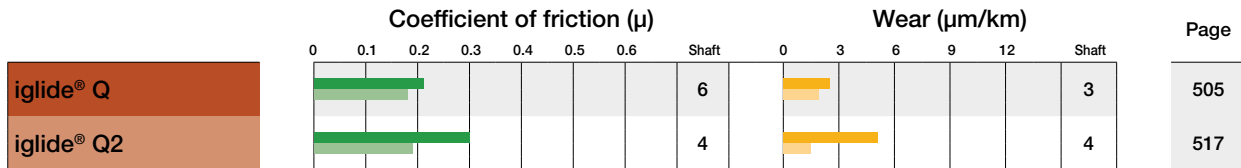


Maximum permissible surface pressure of iglide® bearings at

- +68 °F
- +176 °F

Important temperature limits of iglide® bearings

- Maximum permissible application temperature, continuous
- Temperature where bearings need to be secured against radial or axial movement in the housing



Coefficients of friction of iglide® bearings against steel rotating, p = 145 psi v = 59 fpm

- Average of all the seven sliding combinations tested
- Coefficient of friction of best combination

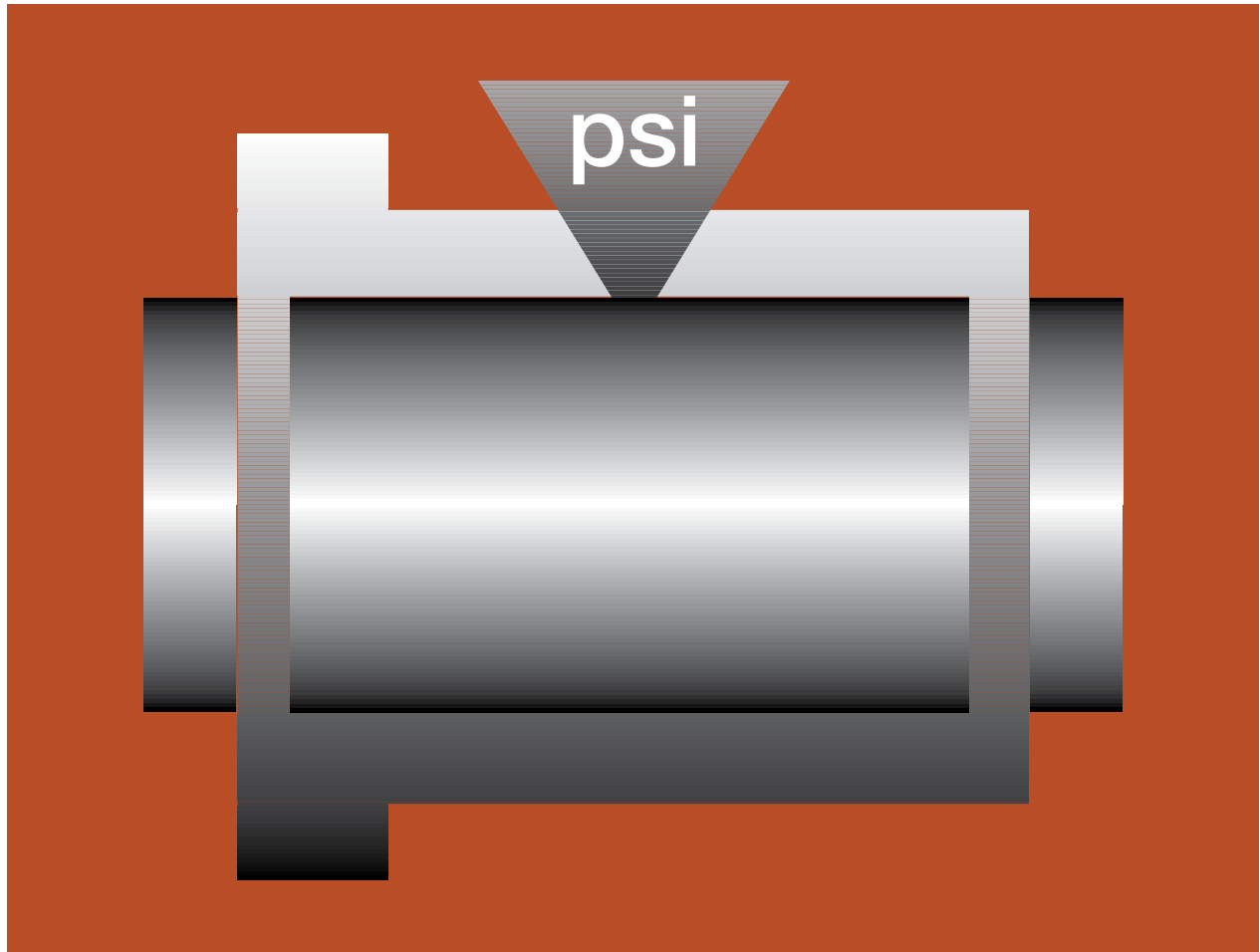
Wear of iglide® bearings against steel rotating, p = 145 psi

- Average of all the seven sliding combinations tested
- Wear of best combination



Shaft material:

1 = 1050, case hardened	4 = Free-cutting steel	7 = 440B Stainless
2 = 1050, case hardened steel, chromed	5 = Machinery Steel	
3 = Hard anodized aluminum	6 = 304 Stainless	



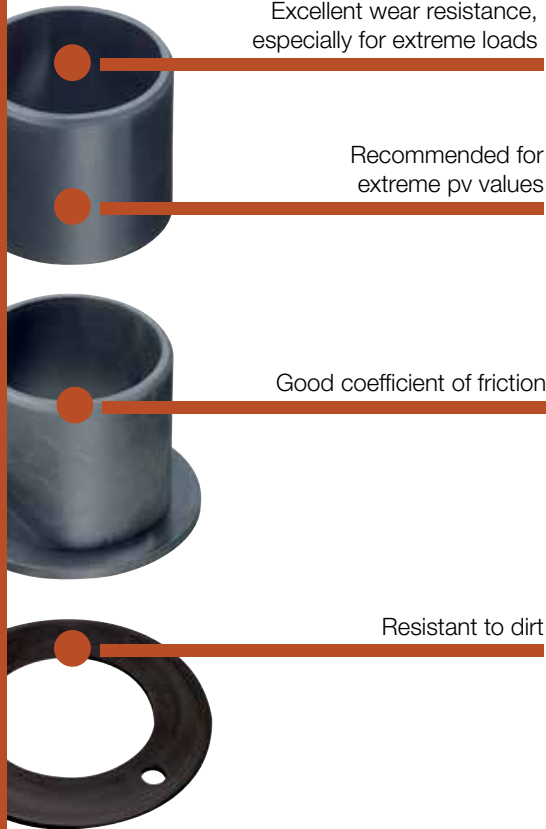
iglide® Q

- Excellent wear resistance, especially for extreme loads
- Recommended for extreme pv values
- Good coefficient of friction
- Resistant to dirt

iglide®
Q

iglide® Q - For high loads

Wear-resistant on most shafts



Excellent wear resistance,
especially for extreme loads

Recommended for
extreme pv values

Good coefficient of friction

Resistant to dirt

iglide® Q is the low priced solution for high duty cycles at high to extreme loads. Bearings made from this material can be used in all types of motion, but is best suited for oscillating applications.



- For oscillating applications
- For extreme loads
- For extreme pv values
- When resistance to dirt is needed



- For underwater applications
 - iglide® H370
- When temperatures are continuously greater than 275°F
 - iglide® H
 - iglide® T500
 - iglide® Z
- In situations involving high edge loads or strong impact loads
 - iglide® Q2



Available from stock

Detailed information about delivery time online.



max. +275°F
min. -40°F



Price breaks online

No minimum order.



Ø 1/8 to 3 inches
more dimensions on request



Typical application areas

- Construction machinery
- Sheet metal industry
- Agricultural machines
- Railway technology
- Doors and gates etc.



Ø 6 to 90 mm
more dimensions on request



iglide® Q - Technical Data

 iglide®
Q

Material Properties Table

General Properties	Unit	iglide® Q	Testing Method
Density	g/cm ³	1.40	
Color		black	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.9	DIN 53495
Max. moisture absorption	% weight	4.9	
Coefficient of friction, dynamic against steel	μ	0.05 - 0.15	
pv value, max. (dry)	psi x fpm	16,000	

Mechanical Properties	Unit	iglide® Q	Testing Method
Modulus of elasticity	psi	652,700	DIN 53457
Tensile strength at 68°F	psi	17,400	DIN 53452
Compressive strength	psi	12,910	
Permissible static surface pressure (68°F)	psi	14,500	
Shore D-hardness		83	DIN 53505

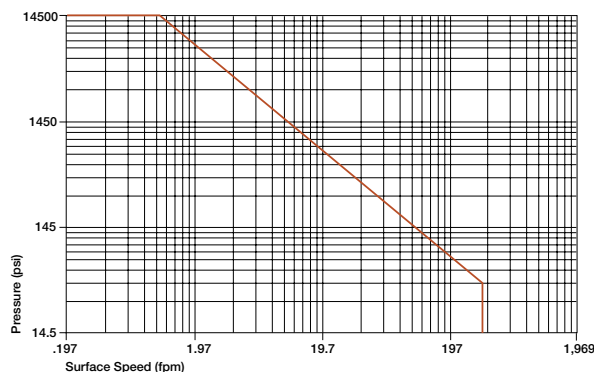
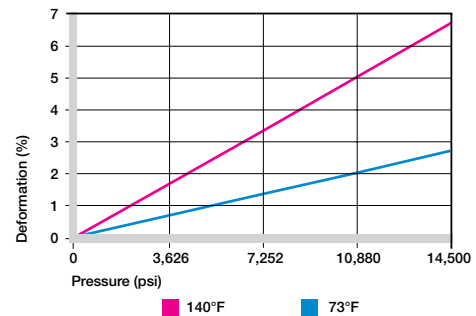
Physical and Thermal Properties	Unit	iglide® Q	Testing Method
Max. long-term application temperature	°F	275	
Max. application temperature, short-term	°F	311	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.23	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	5	DIN 53752

Electrical Properties	Unit	iglide® Q	Testing Method
Specific volume resistance	Ωcm	> 10 ¹⁵	DIN IEC 93
Surface resistance	Ω	> 10 ¹²	DIN 53482

Compressive Strength

iglide® Q is a material that is used when high loads over 7,250 psi are required. The graph shows the elastic deformation of iglide® Q for radial loads. At the maximum permissible static load of 14,500 psi, deformation is less than 3% at room temperature.

► Compressive strength, Page 63



Permissible pv value for iglide® Q running dry against a steel shaft, at 68°F

Permissible Surface Speeds

Under extreme radial loads, iglide® Q plain bearings can achieve the highest pv values for plain bearings running dry. Although iglide® Q plain bearings provide the largest advantages, for high loads and low speeds, high surface speeds are also possible, due to excellent friction values. The values in the table show the speeds at which friction can cause temperature to increase to maximum permissible levels.

► Surface speed, Page 64

► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	196	393
Oscillating	137	275
Linear	984	1181

Maximum surface speeds

Temperatures

Plain bearings made of iglide® Q have excellent wear resistance even at high temperatures. The maximum long-term application temperature is 275°F. For the short-term, the material can withstand 311°F. Because of different environmental influences, the bearing can lose pressfit at lower temperatures. Therefore, it may be necessary to secure the bearings in the housing bore. Also, notice that the coefficient of friction increases rapidly as temperature increases beginning at approximately 212°F.

► Application temperatures, Page 67

iglide® Q	Application Temperature
Minimum	-40°F
Max. long-term	+275°F
Max. short-term	+311°F
Additional axial securing	+122°F

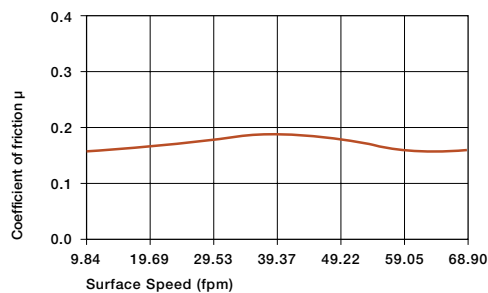
Temperature iglide® Q

Friction and Wear

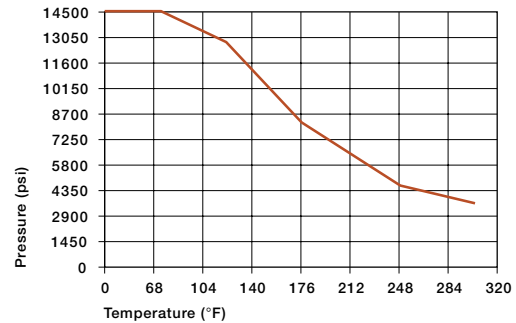
Although most dry running plastic bearings feature decreasing coefficients of friction with increasing pressure, iglide® Q goes further than most, under high pressure the material gives excellent low values.

► Coefficients of friction and surfaces, Page 68

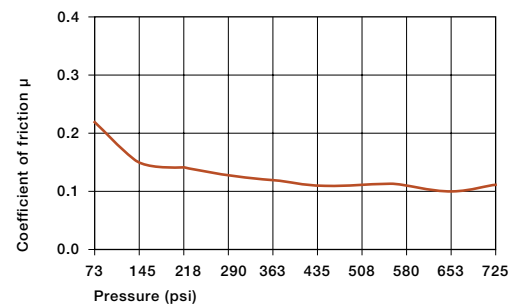
► Wear resistance, Page 69



Coefficient of friction as a result of the surface speed;
load = 108 psi constant



Recommended maximum static surface pressure of
iglide® Q as a result of the temperature



Coefficient of friction as a result of the load, $v = 1.97$ fpm

iglide® Q	Coefficient of Friction
Dry	0.05 - 0.15
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction for iglide® Q against steel (Shaft
finish = 40 rms, 50 HRC)

iglide® Q - Technical Data

iglide®
Q

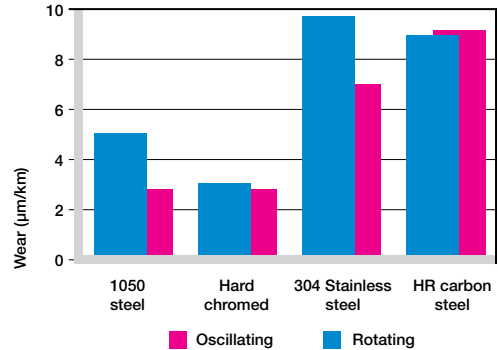
Shaft Materials

The graphs show results of testing different shaft materials with plain bearings made of iglide® Q.

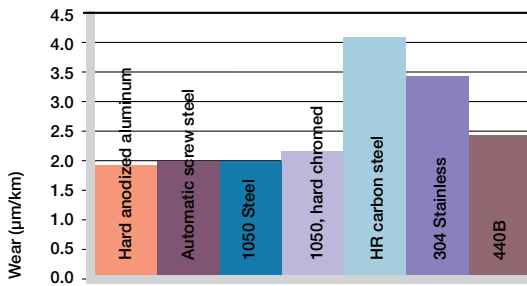
iglide® Q plain bearings have a higher average wear rate at low loads, than bearings made of iglide® J or L280. However, the strength of iglide® Q is its wear resistance at heavy loads and in oscillating operation. In oscillating movements, iglide® Q plain bearings perform best against hard chromed or machined steel shafts.

If the shaft material you plan to use is not contained in this list, please contact us.

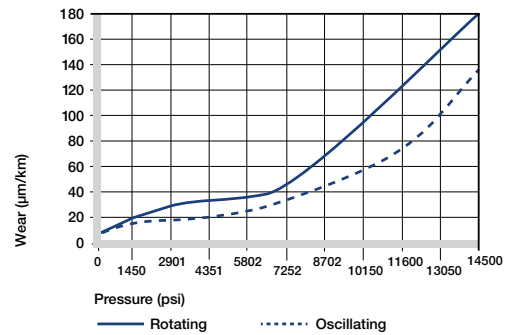
► Shaft Materials, Page 71



Wear for oscillating and rotating applications with different shaft materials at p = 290 psi



Wear of iglide® Q, rotating application with different shaft materials, p=108 psi, v=98 fpm

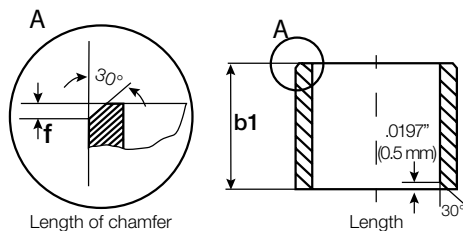


Wear for oscillating and rotating applications with a 1050 hard chromed shaft

Installation Tolerances

iglide® Q plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance & Moisture Absorption

iglide® Q plain bearings have excellent chemical resistance. They are resistant to organic solvents, fuels, oils and fats. The material is only partially resistant to weak acids and weak lyes. The moisture absorption of iglide® Q plain bearings is approximately 0.9% in standard atmosphere. The saturation limit in water is 4.9%. This must be taken into account along with any other application conditions.

► Chemical table, Page 1364

Medium	Resistance
Alcohol	+ to 0
Hydrocarbon, chlorinated	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to –
Strong acids	–
Weak alkaline	+
Strong alkaline	0

+ resistant, 0 conditionally resistant, – not resistant

Chemical resistance of iglide® Q

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® Q plain bearings

Radiation Resistance

Plain bearings made from iglide® Q are resistant to radiation up to an intensity of 3×10^2 Gy.

UV-Resistance

The tribological properties of iglide® Q plain bearings stay constant for the most part under weathering effects.

Vacuum

When used in a vacuum, the iglide® Q plain bearings release existing moisture as a vapor. Therefore, only dehumidified bearings made of iglide® Q are suitable for the vacuum.

Electrical Properties

iglide® Q plain bearings are electrically insulating.

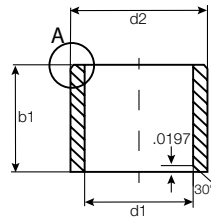
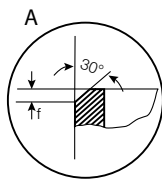
iglide® Q

Specific volume resistance	> 10^{15} Ωcm
Surface resistance	> 10^{12} Ω

Electrical properties of iglide® Q

iglide® Q - Product Range

Sleeve bearing - Inch

 iglide®
Q

 For tolerance values
please refer to page 509

Order key

Type	Dimensions
Q S I -01 03-02	
iglide® material	Inner-Ø d1 (inch)
Form S (sleeve)	Outer-Ø d2 (inch)
Inch	Length b1 (inch)

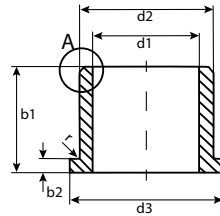
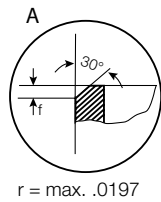
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
QSI-0203-04	1/8	3/16	1/4	.1251	.1269	.1873	.1878	.1236	.1243
QSI-0304-04	3/16	1/4	1/4	.1873	.1892	.2497	.2503	.1858	.1865
QSI-0304-06	3/16	1/4	3/8			.2497	.2503	.1858	.1865
QSI-0405-04	1/4	5/16	1/4	.2498	.2521	.3122	.3128	.2481	.2490
QSI-0405-06	1/4	5/16	3/8			.3122	.3128	.2481	.2490
QSI-0405-08	1/4	5/16	1/2			.3122	.3128	.2481	.2490
QSI-0506-04	5/16	3/8	1/4	.3125	.3148	.3747	.3753	.3106	.3115
QSI-0506-06	5/16	3/8	3/8			.3747	.3753	.3106	.3115
QSI-0506-08	5/16	3/8	1/2			.3747	.3753	.3106	.3115
QSI-0607-04	3/8	15/32	1/4	.3750	.3773	.4684	.4691	.3731	.3740
QSI-0607-06	3/8	15/32	3/8			.4684	.4691	.3731	.3740
QSI-0607-08	3/8	15/32	1/2			.4684	.4691	.3731	.3740
QSI-0708-08	7/16	17/32	1/2	.4379	.4406	.5309	.5316	.4355	.4365
QSI-0809-12	1/2	19/32	3/4	.5003	.5030	.5934	.5941	.4980	.4990
QSI-1011-12	5/8	23/32	3/4	.6253	.6280	.7184	.7192	.6230	.6240
QSI-1214-08	3/4	7/8	1/2	.7507	.7541	.8747	.8755	.7479	.7491
QSI-1214-12	3/4	7/8	3/4			.8747	.8755	.7479	.7491
QSI-1214-16	3/4	7/8	1			.8747	.8755	.7479	.7491
QSI-1416-16	7/8	1	1	.8757	.8791	.9997	1.0005	.8729	.8741
QSI-1618-16	1	1 1/8	1	1.0007	1.0041	1.1247	1.1255	.9979	.9991
QSI-1618-24	1	1 1/8	1 1/2			1.1247	1.1255	.9979	.9991
QSI-1820-24	1 1/8	1 9/32	1 1/2	1.1254	1.1288	1.2808	1.2818	1.1226	1.1238
QSI-2022-20	1 1/4	1 13/32	1 1/4	1.2508	1.2548	1.4058	1.4068	1.2472	1.2488
QSI-2022-24	1 1/4	1 13/32	1 1/2			1.4058	1.4068	1.2472	1.2488
QSI-2426-24	1 1/2	1 21/32	1 1/2	1.5008	1.5408	1.6558	1.6568	1.4972	1.4988
QSI-2629-20	1 5/8	1 25/32	1 1/4	1.6258	1.6297	1.7808	1.7818	1.6222	1.6238
QSI-2831-32	1 3/4	1 15/16	2	1.7508	1.7547	1.9371	1.9381	1.7471	1.7487
QSI-3235-12	2	2 3/16	3/4	2.0011	2.0057	2.1871	2.1883	1.9969	1.9981
QSI-3235-16	2	2 3/16	1			2.1871	2.1883	1.9969	1.9981
QSI-3235-24	2	2 3/16	1 1/2			2.1871	2.1883	1.9969	1.9981
QSI-3235-32	2	2 3/16	2			2.1871	2.1883	1.9969	1.9981
QSI-3235-40	2	2 3/16	2 1/2			2.1871	2.1883	1.9969	1.9981
QSI-3639-32	2 1/4	2 7/16	2	2.2531	2.2577	2.4365	2.4377	2.2489	2.2507
QSI-4043-16	2 1/2	2 11/16	1.0	2.5035	2.5082	2.6869	2.6881	2.4993	2.5011
QSI-4043-32	2 1/2	2 11/16	2.0			2.6869	2.6881	2.4993	2.5011
QSI-4851-16	3.0	3 3/16	1.0	3.0023	3.0070	3.1858	3.1872	2.9982	3.0000
QSI-4851-32	3.0	3 3/16	2.0			3.1858	3.1872	2.9982	3.0000
QSI-4851-48	3.0	3 3/16	3.0			3.1858	3.1872	2.9982	3.0000

iglide®
Q

iglide® Q - Product Range

Flange bearing - Inch



For tolerance values
please refer to page 509



Order key

Type	Dimensions
Q F I	-02 03-02
iglide® material	
Form F (flange)	
Inch	
Inner-Ø d1 (inch)	
Outer-Ø d2 (inch)	
Length b1 (inch)	

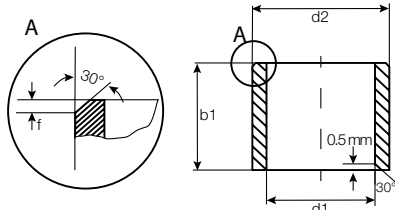
*Based on steel housing bore

Part Number	d1	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
QFI-0203-04	1/8	3/16	.312	1/4	.032	.1251	.1269	.1873	.1878	.1236	.1243
QFI-0304-06	3/16	1/4	.375	3/8	.032	.1873	.1892	.2497	.2503	.1858	.1865
QFI-0405-06	1/4	5/16	.500	3/8	.032	.2498	.2521	.3122	.3128	.2481	.2490
QFI-0405-08	1/4	5/16	.500	1/2	.032			.3122	.3128	.2481	.2490
QFI-0506-08	5/16	3/8	.562	1/2	.032	.3125	.3148	.3747	.3753	.3106	.3115
QFI-0607-04	3/8	15/32	.687	1/4	.046	.3750	.3773	.4684	.4691	.3731	.3740
QFI-0607-08	3/8	15/32	.687	1/2	.046			.4684	.4691	.3731	.3740
QFI-0809-04	1/2	19/32	.875	1/4	.046	.5003	.5030	.5934	.5941	.4980	.4990
QFI-0809-08	1/2	19/32	.875	1/2	.046			.5934	.5941	.4980	.4990
QFI-0809-12	1/2	19/32	.875	3/4	.046			.5934	.5941	.4980	.4990
QFI-1011-12	5/8	23/32	.937	3/4	.046	.6253	.6280	.7184	.7192	.6230	.6240
QFI-1012-08	5/8	3/4	1.000	1/2	.062	.6263	.6290	.7500	.7510	.6240	.6250
QFI-1214-08	3/4	7/8	1.125	1/2	.062	.7507	.7541	.8747	.8755	.7479	.7491
QFI-1214-12	3/4	7/8	1.125	3/4	.062			.8747	.8755	.7479	.7491
QFI-1214-16	3/4	7/8	1.125	1	.062			.8747	.8755	.7479	.7491
QFI-1416-12	7/8	1	1.250	3/4	.062	.8757	.8791	.9997	1.0005	.8729	.8741
QFI-1416-16	7/8	1	1.250	1	.062			.9997	1.0005	.8729	.8741
QFI-1618-08	1	1 1/8	1.375	1/2	.062	1.0007	1.0041	1.1247	1.1255	.9979	.9991
QFI-1618-16	1	1 1/8	1.375	1	.062			1.1247	1.1255	.9979	.9991
QFI-1618-24	1	1 1/8	1.375	1 1/2	.062			1.1247	1.1255	.9979	.9991
QFI-1820-12	1 1/8	1 9/32	1.562	3/4	.078	1.1254	1.1288	1.2808	1.2818	1.1226	1.1238
QFI-1820-24	1 1/8	1 9/32	1.562	1 1/2	.078			1.2808	1.2818	1.1226	1.1238
QFI-2022-20	1 1/4	1 13/32	1.687	1 1/4	.078	1.2508	1.2548	1.4058	1.4068	1.2472	1.2488
QFI-2022-24	1 1/4	1 13/32	1.687	1 1/2	.078			1.4058	1.4068	1.2472	1.2488
QFI-2426-04	1 1/2	1 21/32	2.000	1/4	.078	1.5008	1.5048	1.6558	1.6568	1.4972	1.4988
QFI-2426-24	1 1/2	1 21/32	2.000	1 1/2	.078			1.6558	1.6568	1.4972	1.4988
QFI-2831-32	1 3/4	1 15/16	2.375	2	.093	1.7508	1.7547	1.9371	1.9381	1.7471	1.7487
QFI-3235-32	2	2 3/16	2.625	2	.093	2.0011	2.0057	2.1871	2.1883	1.9969	1.9981
QFI-3639-32	2 1/4	2 7/16	2.750	2	.093	2.2531	2.2577	2.4365	2.4377	2.2489	2.2507

iglide® Q - Product Range

Sleeve bearing - Metric

iglide®
Q



Order key

Type	Dimensions
Q S M -06 08 -06	
iglide® material	Inner-Ø d1 (mm)
Form S (sleeve)	Outer-Ø d2 (mm)
Metric	Length b1 (mm)

For tolerance values please refer to page 509

Dimensions according to ISO 3547-1 and special dimensions

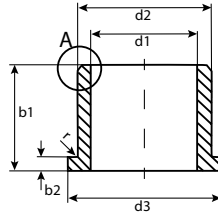
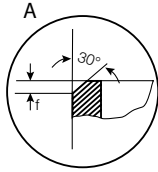
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
QSM-0608-10	6.0	8.0	10.0	6.020	6.068	8.000	8.015	5.970	6.000
QSM-0810-08	8.0	10.0	8.0	8.025	8.083	10.000	10.015	7.964	8.000
QSM-1012-10	10.0	12.0	10.0	10.025	10.083	12.000	12.018	9.964	10.000
QSM-1214-10	12.0	14.0	10.0	12.032	12.102	14.000	14.018	11.957	12.000
QSM-1214-20	12.0	14.0	20.0			14.000	14.018	11.957	12.000
QSM-1618-08	16.0	18.0	8.0	16.032	16.102	18.000	18.018	15.957	16.000
QSM-1618-12	16.0	18.0	12.0			18.000	18.018	15.957	16.000
QSM-1618-20	16.0	18.0	20.0			18.000	18.018	15.957	16.000
QSM-1820-20	18.0	20.0	20.0	18.032	18.102	20.000	20.021	17.957	18.000
QSM-2022-15	20.0	22.0	15.0	20.040	20.124	22.000	22.021	19.948	20.000
QSM-2023-15	20.0	23.0	15.0	20.040	20.124	23.000	23.021	19.948	20.000
QSM-2023-20	20.0	23.0	20.0			23.000	23.021	19.948	20.000
QSM-2023-25	20.0	23.0	25.0			23.000	23.021	19.948	20.000
QSM-2023-30	20.0	23.0	30.0			23.000	23.021	19.948	20.000
QSM-2225-15	22.0	25.0	15.0	22.040	22.124	25.000	25.021	21.948	22.000
QSM-2528-25	25.0	28.0	25.0	25.040	25.124	28.000	28.021	24.948	25.000
QSM-2528-48	25.0	28.0	48.0			28.000	28.021	24.948	25.000
QSM-3034-20	30.0	34.0	20.0	30.040	30.124	34.000	34.025	29.948	30.000
QSM-3034-40	30.0	34.0	40.0			34.000	34.025	29.948	30.000
QSM-3539-15	35.0	39.0	15.0	35.050	35.150	39.000	39.025	34.938	35.000
QSM-3539-30	35.0	39.0	30.0			39.000	39.025	34.938	35.000
QSM-3539-50	35.0	39.0	50.0			39.000	39.025	34.938	35.000
QSM-4044-40	40.0	44.0	40.0	40.050	40.150	44.000	44.025	39.938	40.000
QSM-4044-47	40.0	44.0	47.0			44.000	44.025	39.938	40.000
QSM-4550-252	45.0	50.0	25.2	45.050	45.150	50.000	50.025	44.938	45.000
QSM-4550-50	45.0	50.0	50.0			50.000	50.025	44.938	45.000
QSM-5055-50	50.0	55.0	50.0	50.050	50.150	55.000	55.030	49.938	50.000
QSM-5055-60	50.0	55.0	60.0			55.000	55.030	49.938	50.000
QSM-5560-50	55.0	60.0	50.0	55.060	55.180	60.000	60.030	54.926	55.000
QSM-6065-50	60.0	65.0	50.0	60.060	60.180	65.000	65.030	59.926	60.000
QSM-6570-34	65.0	70.0	34.0	65.060	65.180	70.000	70.030	64.926	65.000
QSM-7075-50	70.0	75.0	50.0	70.060	70.180	75.000	75.030	69.926	70.000
QSM-8085-60	80.0	85.0	60.0	80.060	80.180	85.000	85.035	79.926	80.000

iglide®
Q

iglide® Q - Product Range

Flange bearing - Metric


 $r = \max. 0.5$

 For tolerance values
please refer to page 509

Order key

Type	Dimensions
Q F M -06 08 -06	
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

Dimensions according to ISO 3547-1 and special dimensions

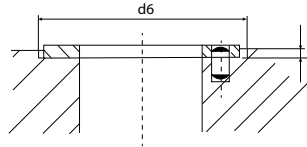
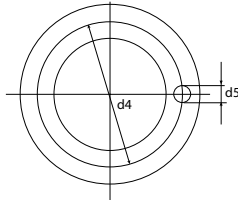
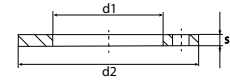
*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
QFM-0608-04	6.0	8.0	12.0	4.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
QFM-0810-05	8.0	10.0	15.0	5.5	1.0	8.025	8.083	10.000	10.015	7.964	8.000
QFM-0810-06	8.0	10.0	15.0	6.0	1.0			10.000	10.015	7.964	8.000
QFM-1012-06	10.0	12.0	18.0	6.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
QFM-101215-08	10.0	12.0	15.0	8.0	1.0			12.000	12.018	9.964	10.000
QFM-1012-10	10.0	12.0	18.0	10.0	1.0			12.000	12.018	9.964	10.000
QFM-101215-035	10.0	12.0	15.0	3.5	1.0			12.000	12.018	9.964	10.000
QFM-1214-08	12.0	14.0	20.0	8.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
QFM-1214-12	12.0	14.0	20.0	12.0	1.0			14.000	14.018	11.957	12.000
QFM-1214-20	12.0	14.0	20.0	20.0	1.0			14.000	14.018	11.957	12.000
QFM-1416-12	14.0	16.0	22.0	12.0	1.0	14.032	14.102	16.000	16.018	13.957	14.000
QFM-1618-17	16.0	18.0	24.0	17.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
QFM-1820-12	18.0	20.0	26.0	12.0	1.0	18.032	18.102	20.000	20.021	17.957	18.000
QFM-2023-21	20.0	23.0	30.0	21.0	1.5	20.040	20.124	23.000	23.021	19.948	20.000
QFM-2528-21	25.0	28.0	35.0	21.5	1.5	25.040	25.124	28.000	28.021	24.948	25.000
QFM-2528-25	25.0	28.0	35.0	25.0	1.5			28.000	28.021	24.948	25.000
QFM-2629-05	26.0	29.0	35.0	5.0	1.5	26.040	26.124	29.000	29.021	25.948	26.000
QFM-2629-10	26.0	29.0	35.0	10.0	1.5			29.000	29.021	25.948	26.000
QFM-2730-20	27.0	30.0	38.0	20.0	1.5	27.040	27.124	30.000	30.021	26.948	27.000
QFM-3034-37	30.0	34.0	42.0	37.0	2.0	30.040	30.124	34.000	34.025	29.948	30.000
QFM-3539-26	35.0	39.0	47.0	26.0	2.0	35.050	35.150	39.000	39.025	34.938	35.000
QFM-4044-40	40.0	44.0	52.0	40.0	2.0	40.050	40.150	44.000	44.025	39.938	40.000
QFM-5055-50	50.0	55.0	63.0	50.0	2.0	50.050	50.150	55.000	55.030	49.938	50.000
QFM-6065-50	60.0	65.0	73.0	50.0	2.0	60.060	60.180	65.000	65.030	59.926	60.000
QFM-7075-50	70.0	75.0	83.0	75.0	2.0	70.060	70.180	75.000	75.030	69.926	70.000

iglide® Q - Product Range

Thrust washer - Metric

iglide®
Q



Order key

Type

Dimensions

Q T M -02 03-02

iglide® material

Form T (washer)

Metric

Inner-Ø d1 (mm)

Outer-Ø d2 (mm)

Thickness s (mm)

Part Number	d1 +0.25	d2 -0.25	s -0.05	d4 -0.12 +0.12	d5 +0.375 +0.125	h +0.2 -0.2	d6 +0.12
QTM-2842-015	28.0	42.0	1.5	35.0	4.0	1.0	42.0
QTM-3254-015	32.0	54.0	1.5	43.0	4.0	1.0	54.0
QTM-3862-015	38.0	62.0	1.5	50.0	4.0	1.0	62.0
QTM-5278-020	52.0	78.0	2.0	65.0	4.0	1.5	78.0

iglide®
Q

iglide® Q - Notes



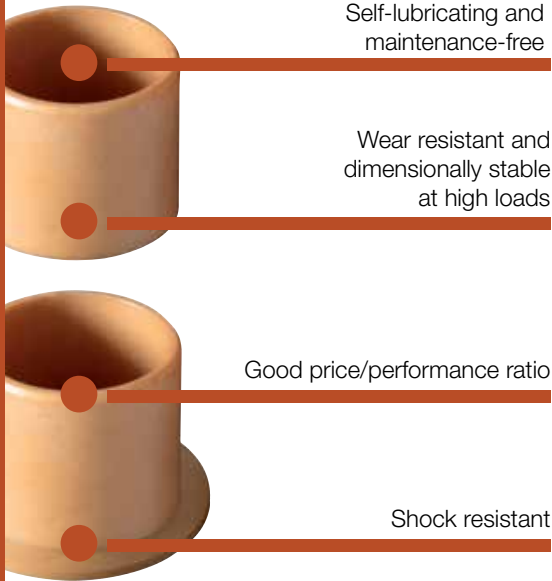
iglide® Q2

- Dimensionally stable at high loads
- Wear Resistant
- Good price/performance ratio

iglide®
Q2

iglide® Q2 - For extreme loads

Wear resistant and robust



Self-lubricating and
maintenance-free

Wear resistant and
dimensionally stable
at high loads

Good price/performance ratio

Shock resistant

iglide® Q2 plain bearings are designed to operate under extreme loads. Solid lubricants reduce the coefficients of friction, and improve wear resistance in heavy-duty pivoting applications.



- When high dynamic loads occur
- When impacts, shocks and contamination occur in addition to high loads
- For highly load pivoting motions



- When only static loads occur
 - iglide® T500
 - iglide® H2
- When high pv values occur in conjunction with high speeds
 - iglide® Z
- When you need a low-cost general purpose bearing
 - iglide® G300
- When soft shafts are in use
 - iglide® L280



Available from stock

Detailed information about delivery time online.



max. +266°F
min. -40°F



Price breaks online

No minimum order.



Ø 1/4 to 2 inches
more dimensions on request



Typical application areas

- Agricultural machines
- Mechanical engineering
- Utility and construction vehicles



Ø 5 to 80 mm
more dimensions on request



iglide® Q2 - Technical Data

 iglide®
Q2

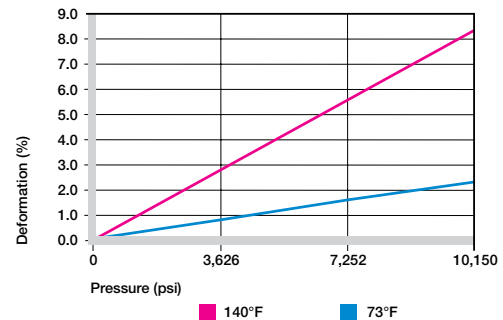
Material Properties Table

General Properties	Unit	iglide® Q2	Testing Method
Density	g/cm ³	1.46	
Color		beige-brown	
Max. moisture absorption at 73°F / 50% r.h.	% weight	1.1	DIN 53495
Max. moisture absorption	% weight	4.6	
Coefficient of friction, dynamic against steel	μ	0.22 - 0.42	
pv value, max. (dry)	psi x fpm	19,500	
Mechanical Properties			
Modulus of elasticity	psi	1,214,000	DIN 53457
Tensile strength at 68°F	psi	34,810	DIN 53452
Compressive strength	psi	18,850	
Permissible static surface pressure (68°F)	psi	17,400	
Shore D-hardness		80	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	266	
Max. application temperature, short-term	°F	392	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	8	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹³	DIN IEC 93
Surface resistance	Ω	> 10 ¹¹	DIN 53482

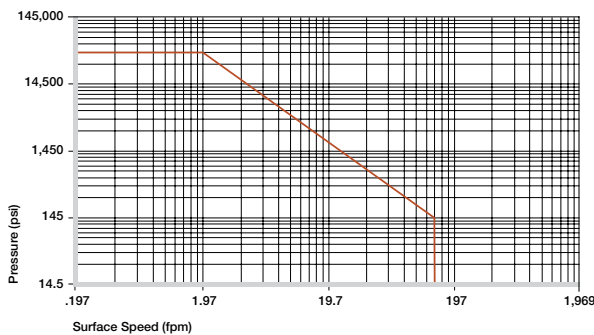
Compressive Strength

The graph shows the elastic deformation of iglide® Q2 during radial loading. Plastic deformation can occur, this depends on the applied pressure.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® Q2 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

The typical applications for iglide® Q2 plain bearings are high load pivoting motions at comparatively low speeds. Independent of that high speeds are still attainable. The speeds shown in the table are threshold values for minimal bearing loads. As loads increase, the admissible speed is reduced with higher loads due to the limitations of the pv value.

► Surface speed, Page 64
 ► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	197	393
Oscillating	137	275
Linear	787	984

Maximum surface speeds

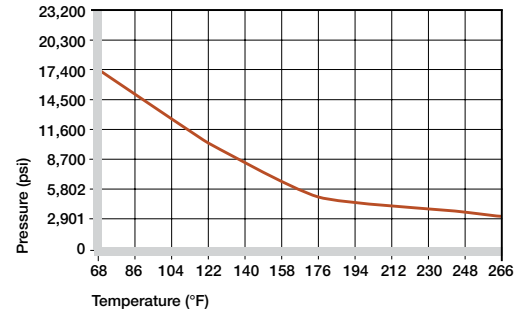
Temperatures

iglide® Q2 is a very temperature resistant material. The short term temperature exposure limit is at 428°F. The long term upper temperature limit of 266°F permits the broad use in applications typical for the agricultural, utility vehicle or construction equipment fields. However, the pressure resistance of iglide® Q2 plain bearings declines as temperatures increase. When considering temperatures, the additional frictional heat in the bearing system must be taken into account

► Application temperatures, Page 67

iglide® Q2	Application Temperature
Minimum	-40°F
Max. long-term	+266°F
Max. short-term	+392°F
Additional axial securing	+176°F

Temperature limits for iglide® Q2



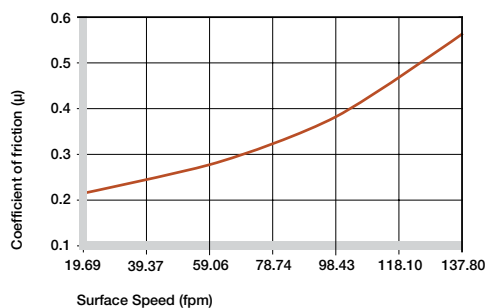
Recommended maximum permissible static surface pressure of iglide® Q2 as a result of the temperature

Friction and Wear

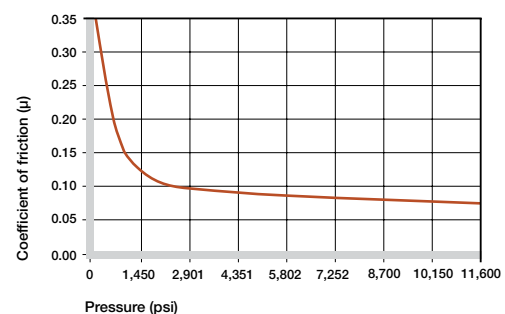
iglide® Q2 has a low coefficient of friction. Please note that a gliding partner with a rough surface finish will increase the friction. The highest coefficients of friction occur at 40 rms. For iglide® Q2 a ground surface with an average roughness range of 4 - 16 rms is recommended. Furthermore, the coefficient of friction of iglide® Q2 plain bearings largely depends on the speed and load. As the speed increases, the coefficient of friction will quickly increase as well. However, as the load is reduced, the coefficient of friction initially drops significantly, then moderately.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® Q2 as a function of the running speed; p = 108 psi



Coefficients of friction of iglide® Q2 as a function of the load, v = 1.97 fpm

iglide® Q2	Coefficient of Friction
Dry	0.22 - 0.42
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® Q2 against steel
(Shaft finish = 40 rms, 50 HRC)

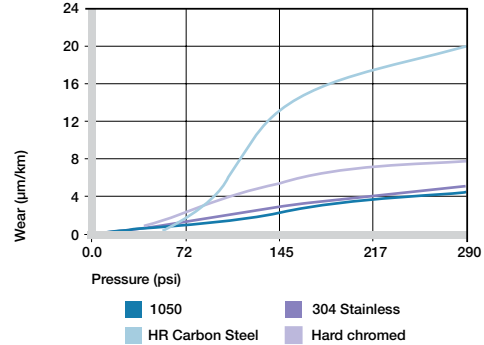
iglide® Q2 - Technical Data

iglide®
Q2

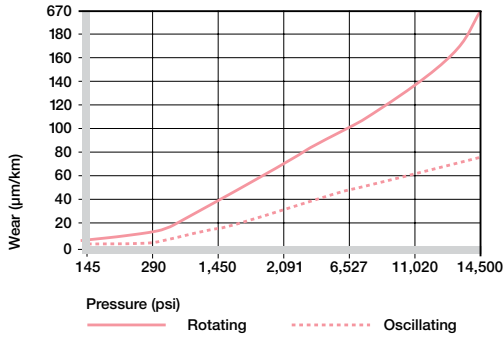
Shaft Materials

Generally we recommend the use of hardened shafts for use in high load applications. Even at low to medium loads, iglide® Q2 will attain increased service life with hard shafts as compared to soft shafts. But for low load applications, the results are outstanding with free cutting steel as well. For high loads, the wear in pivoting applications is much lower than for rotations.

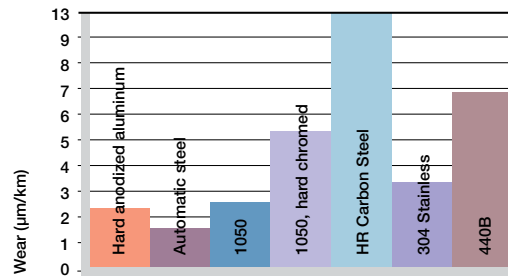
► Shaft Materials, Page 71



Wear of iglide® Q2 with different shaft materials in rotational applications



Wear with different shaft materials, oscillating and rotating movement p = 290 psi

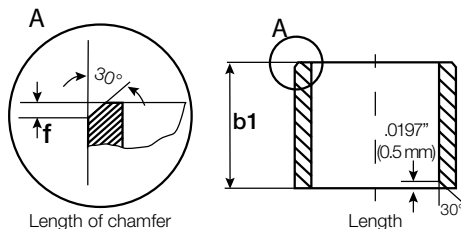


Wear of iglide® Q2, rotating applications with different shaft materials, p=108 psi, v=98 fpm

Installation Tolerances

iglide® Q2 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 / -0.0071	$f = .012 \rightarrow d_1 .040'' - .236''$
0.2362 to 0.3937	-0.0000 / -0.0087	$f = .019 \rightarrow d_1 > .236'' - .472''$
0.3937 to 0.7086	-0.0000 / -0.0106	$f = .031 \rightarrow d_1 > .472'' - 1.18''$
0.7086 to 1.1811	-0.0000 / -0.0130	$f = .047 \rightarrow d_1 > 1.18''$
1.1811 to 1.9685	-0.0000 / -0.0154	
1.9685 to 3.1496	-0.0000 / -0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 / -140	$f = 0.3 \rightarrow d_1 1 - 6$ mm
> 3 to 6	-0 / -180	$f = 0.5 \rightarrow d_1 > 6 - 12$ mm
> 6 to 10	-0 / -220	$f = 0.8 \rightarrow d_1 > 12 - 30$ mm
> 10 to 18	-0 / -270	$f = 1.2 \rightarrow d_1 > 30$ mm
> 18 to 30	-0 / -330	
> 30 to 50	-0 / -390	
> 50 to 80	-0 / -460	

Chemical Resistance

iglide® Q2 plain bearings have good resistance to chemicals. They are resistant to most lubricants. The resistance is only limited for acids.

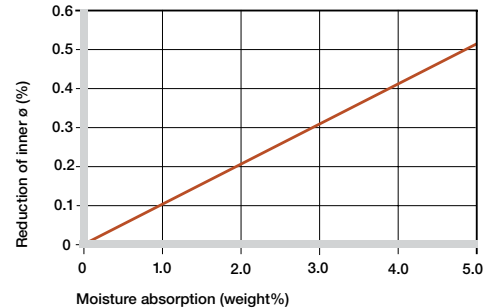
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+ to 0
Hydrocarbon	+
Greases, oils without additives	0 to -
Fuels	-
Weak acids	-
Strong acids	-
Weak alkaline	+ to 0
Strong alkaline	+ to 0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® Q2

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® Q2 plain bearings

Radiation Resistance

Plain bearings made from iglide® Q2 are radiation resistant up to an intensity of 3×10^2 Gy.

UV-Resistance

iglide® Q2 plain bearings are permanently resistant to UV radiation.

Vacuum

The low water elements degas in the vacuum. Applications under vacuum conditions are possible with restrictions.

Electrical Properties

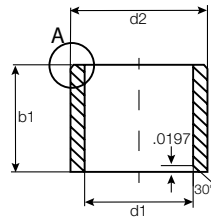
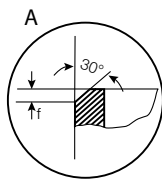
iglide® Q2 plain bearings are electrically insulating.

iglide® Q2	
Specific volume resistance	> 10^{13} Ωcm
Surface resistance	> 10^{11} Ω

Electrical properties of iglide® Q2

iglide® Q2 - Product Range

Sleeve bearing - Inch

 iglide®
Q2

 For tolerance values
please refer to page 521

Order key

Type		Dimensions		
Q2	S	I	-04 05-06	
iglide® material	Form S (sleeve)	Inch	Inner-Ø d1 (inch)	Outer-Ø d2 (inch)
				Length b1 (inch)

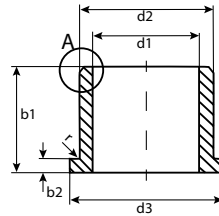
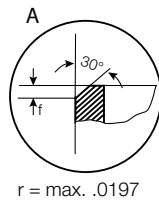
*Based on steel housing bore

Part Number	d1	d2	b1	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
Q2SI-0405-06	1/4	5/16	3/8	.2495	.2518	0.3122	0.3128	0.2481	0.2490
Q2SI-0405-08	1/4	5/16	1/2			0.3122	0.3128	0.2481	0.2490
Q2SI-0506-08	5/16	3/8	1/2	.3120	.3143	0.3747	0.3753	0.3106	0.3115
Q2SI-0607-08	3/8	15/32	1/2	.3745	.3768	0.4684	0.4691	0.3731	0.3740
Q2SI-0607-10	3/8	15/32	5/8			0.4684	0.4691	0.3731	0.3740
Q2SI-0607-12	3/8	15/32	3/4			0.4684	0.4691	0.3731	0.3740
Q2SI-0708-08	7/16	17/32	1/2	.4371	.4399	0.5309	0.5316	0.4355	0.4365
Q2SI-0708-12	7/16	17/32	3/4			0.5309	0.5316	0.4355	0.4365
Q2SI-0809-08	1/2	19/32	1/2	.4996	.5024	0.5934	0.5941	0.4980	0.4990
Q2SI-0809-10	1/2	19/32	5/8			0.5934	0.5941	0.4980	0.4990
Q2SI-0809-12	1/2	19/32	3/4			0.5934	0.5941	0.4980	0.4990
Q2SI-0809-16	1/2	19/32	1			0.5934	0.5941	0.4980	0.4990
Q2SI-1011-12	5/8	23/32	3/4	.6246	.6274	0.7184	0.7192	0.6230	0.6240
Q2SI-1011-16	5/8	23/32	1			0.7184	0.7192	0.6230	0.6240
Q2SI-1214-12	3/4	7/8	3/4	.7499	.7532	0.8747	0.8755	0.7479	0.7491
Q2SI-1214-16	3/4	7/8	1			0.8747	0.8755	0.7479	0.7491
Q2SI-1416-08	7/8	1	1/2	.8749	.8782	0.9997	1.0005	0.8741	0.8729
Q2SI-1416-12	7/8	1	3/4			0.9997	1.0005	0.8741	0.8729
Q2SI-1416-16	7/8	1	1			0.9997	1.0005	0.8741	0.8729
Q2SI-1618-08	1	1 1/8	1/2	.9999	1.0032	1.1247	1.1255	0.9979	0.9991
Q2SI-1618-16	1	1 1/8	1			1.1247	1.1255	0.9979	0.9991
Q2SI-1820-16	1 1/8	1 1/4	1	1.1246	1.1279	1.2808	1.2818	1.1226	1.1238
Q2SI-1820-20	1 1/8	1 1/4	1 1/4			1.2808	1.2818	1.1226	1.1238
Q2SI-2022-16	1 1/4	1 13/32	1	1.2498	1.2537	1.4058	1.4068	1.2472	1.2488
Q2SI-2022-20	1 1/4	1 13/32	1 1/4			1.4058	1.4068	1.2472	1.2488
Q2SI-2426-16	1 1/2	1 21/32	1	1.4998	1.5037	1.6558	1.6568	1.4972	1.4988
Q2SI-2426-24	1 1/2	1 21/32	1 1/2			1.6558	1.6568	1.4972	1.4988
Q2SI-2629-16	1 5/8	1 25/32	1	1.6248	1.6287	1.7808	1.7818	1.6222	1.6238
Q2SI-2629-24	1 5/8	1 25/32	1 1/2			1.7808	1.7818	1.6222	1.6238
Q2SI-2831-16	1 3/4	1 15/16	1	1.7497	1.7536	1.9371	1.9381	1.7471	1.7487
Q2SI-2831-32	1 3/4	1 15/16	2			1.9371	1.9381	1.7471	1.7487
Q2SI-3033-16	1 7/8	2	1	1.8887	1.8836	2.0621	2.0633	1.8739	1.8787
Q2SI-3033-32	1 7/8	2	2			2.0621	2.0633	1.8739	1.8787
Q2SI-3235-16	2	2 3/16	1	1.9993	2.0040	2.1871	2.1883	1.9969	1.9981
Q2SI-3235-32	2	2 3/16	2			2.1871	2.1883	1.9969	1.9981

iglide®
Q2

iglide® Q2 - Product Range

Flange bearing - Inch


 For tolerance values
please refer to page 521

Order key

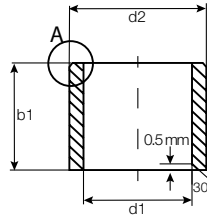
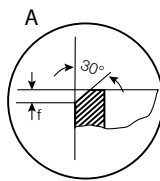
Type	Dimensions
Q2 F I -02 03-02	
iglide® material	
Form F (flange)	
Inch	
Inner-Ø d1 (inch)	
Outer-Ø d2 (inch)	
Length b1 (inch)	

*Based on steel housing bore

Part Number	d1	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
Q2FI-0405-06	1/4	5/16	.500	3/8	.032	.2495	.2518	.3122	.3128	.2481	.2490
Q2FI-0405-08	1/4	5/16	.500	1/2	.032			.3122	.3128	.2481	.2490
Q2FI-0506-04	1/4	5/16	.500	1/4	.032	.3120	.3143	.3747	.3753	.3106	.3115
Q2FI-0506-06	1/4	5/16	.500	3/8	.032			.3747	.3753	.3106	.3115
Q2FI-0506-08	5/16	3/8	.562	1/2	.032			.3747	.3753	.3106	.3115
Q2FI-0607-04	3/8	15/32	.687	1/4	.046	.3745	.3768	.4684	.4691	.3731	.3740
Q2FI-0607-06	3/8	15/32	.687	3/8	.046			.4684	.4691	.3731	.3740
Q2FI-0607-08	3/8	15/32	.687	1/2	.046			.4684	.4691	.3731	.3740
Q2FI-0607-12	3/8	15/32	.687	3/4	.046			.4684	.4691	.3731	.3740
Q2FI-0708-08	7/16	17/32	.750	1/2	.046	.4371	.4399	.5309	.5316	.4355	.4365
Q2FI-0809-04	1/2	19/32	.875	1/4	.046	.4996	.5024	.5934	.5941	.4980	.4990
Q2FI-0809-06	1/2	19/32	.875	3/8	.046			.5934	.5941	.4980	.4990
Q2FI-0809-08	1/2	19/32	.875	1/2	.046			.5934	.5941	.4980	.4990
Q2FI-0809-12	1/2	19/32	.875	3/4	.046			.5934	.5941	.4980	.4990
Q2FI-0809-16	1/2	19/32	.875	1	.046			.5934	.5941	.4980	.4990
Q2FI-1011-08	5/8	23/32	.937	1/2	.046	.6246	.6274	.7184	.7192	.6230	.6240
Q2FI-1011-12	5/8	23/32	.937	3/4	.046			.7184	.7192	.6230	.6240
Q2FI-1011-16	5/8	23/32	.937	1	.046			.7184	.7192	.6230	.6240
Q2FI-1214-08	3/4	7/8	1.125	1/2	.062	.7499	.7532	.8747	.8755	.7479	.7491
Q2FI-1214-12	3/4	7/8	1.125	3/4	.062			.8747	.8755	.7479	.7491
Q2FI-1214-16	3/4	7/8	1.125	1	.062			.8747	.8755	.7479	.7491
Q2FI-1416-08	7/8	1	1.250	1/2	.062	.8749	.8782	.9997	1.0005	.8729	.8741
Q2FI-1416-12	7/8	1	1.250	3/4	.062			.9997	1.0005	.8729	.8741
Q2FI-1416-16	7/8	1	1.250	1	.062			.9997	1.0005	.8729	.8741
Q2FI-1618-08	1	1 1/8	1.375	1/2	.062	.9999	1.0032	1.1247	1.1255	.9979	.9991
Q2FI-1618-12	1	1 1/8	1.375	3/4	.062			1.1247	1.1255	.9979	.9991
Q2FI-1618-16	1	1 1/8	1.375	1	.062			1.1247	1.1255	.9979	.9991
Q2FI-2022-16	1 1/4	1 13/32	1.687	1	.078	1.2498	1.2537	1.4058	1.4068	1.2472	1.2488
Q2FI-2022-20	1 1/4	1 13/32	1.687	1 1/4	.078			1.4058	1.4068	1.2472	1.2488
Q2FI-2426-16	1 1/2	1 21/32	2.000	1	.078	1.4998	1.5037	1.6558	1.6568	1.4972	1.4988
Q2FI-2426-24	1 1/2	1 21/32	2.000	1 1/2	.078			1.6558	1.6568	1.4972	1.4988
Q2FI-2831-32	1 3/4	1 15/16	2.375	2	.093	1.7497	1.7536	1.9371	1.9381	1.7471	1.7487
Q2FI-3235-16	2	2 3/16	2.625	1	.093	1.9993	2.0040	2.1871	2.1883	1.9969	1.9981
Q2FI-3235-32	2	2 3/16	2.625	2	.093			2.1871	2.1883	1.9969	1.9981

iglide® Q2 - Product Range

Sleeve bearing - Metric

 iglide®
Q2

Order key

Type	Dimensions
Q2 S M -04 05-04	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 For tolerance values
please refer to page 521

Dimensions according to ISO 3547-1 and special dimensions

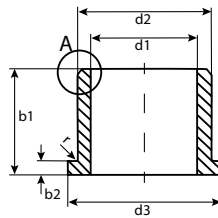
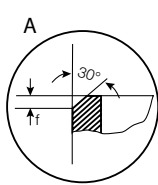
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
Q2SM-0507-05	5.0	7.0	5.0	5.020	5.068	7.000	7.015	4.970	5.000
Q2SM-0608-06	6.0	8.0	6.0	6.020	6.068	8.000	8.015	5.970	6.000
Q2SM-0810-10	8.0	10.0	10.0	8.025	8.083	10.000	10.015	7.964	8.000
Q2SM-1012-10	10.0	12.0	10.0	10.025	10.083	12.000	12.018	9.964	10.000
Q2SM-1214-12	12.0	14.0	12.0	12.032	12.102	14.000	14.018	11.957	12.000
Q2SM-1517-15	15.0	17.0	15.0	15.032	15.102	17.000	17.018	14.957	15.000
Q2SM-1618-15	16.0	18.0	15.0	16.032	16.102	18.000	18.018	15.957	16.000
Q2SM-2023-20	20.0	23.0	20.0	20.040	20.124	23.000	23.021	19.948	20.000
Q2SM-2023-30	20.0	23.0	30.0			23.000	23.021	19.948	20.000
Q2SM-2528-20	25.0	28.0	20.0	25.040	25.124	28.000	28.021	24.948	25.000
Q2SM-3034-30	30.0	34.0	30.0	30.040	30.124	34.000	34.025	29.948	30.000
Q2SM-3240-40	32.0	40.0	40.0	32.050	32.150	40.000	40.025	31.938	32.000
Q2SM-3539-40	35.0	39.0	40.0	35.050	35.150	39.000	39.025	34.938	35.000
Q2SM-4044-40	40.0	44.0	40.0	40.050	40.150	44.000	44.025	39.938	40.000
Q2SM-4550-50	45.0	50.0	50.0	45.050	45.150	50.000	50.025	44.938	45.000
Q2SM-5055-50	50.0	55.0	50.0	50.050	50.150	55.000	55.030	49.938	50.000
Q2SM-6065-60	60.0	65.0	60.0	60.060	60.180	65.000	65.030	59.926	60.000
Q2SM-6570-60	65.0	70.0	60.0	65.060	65.180	70.000	70.030	64.926	65.000
Q2SM-7075-60	70.0	75.0	60.0	70.060	70.180	75.000	75.030	69.926	70.000
Q2SM-7580-40	75.0	80.0	40.0	75.060	75.180	80.000	80.030	74.926	75.000

iglide®
Q2

iglide® Q2 - Product Range

Flange bearing - Metric


Order key
 $r = \max. 0.5$

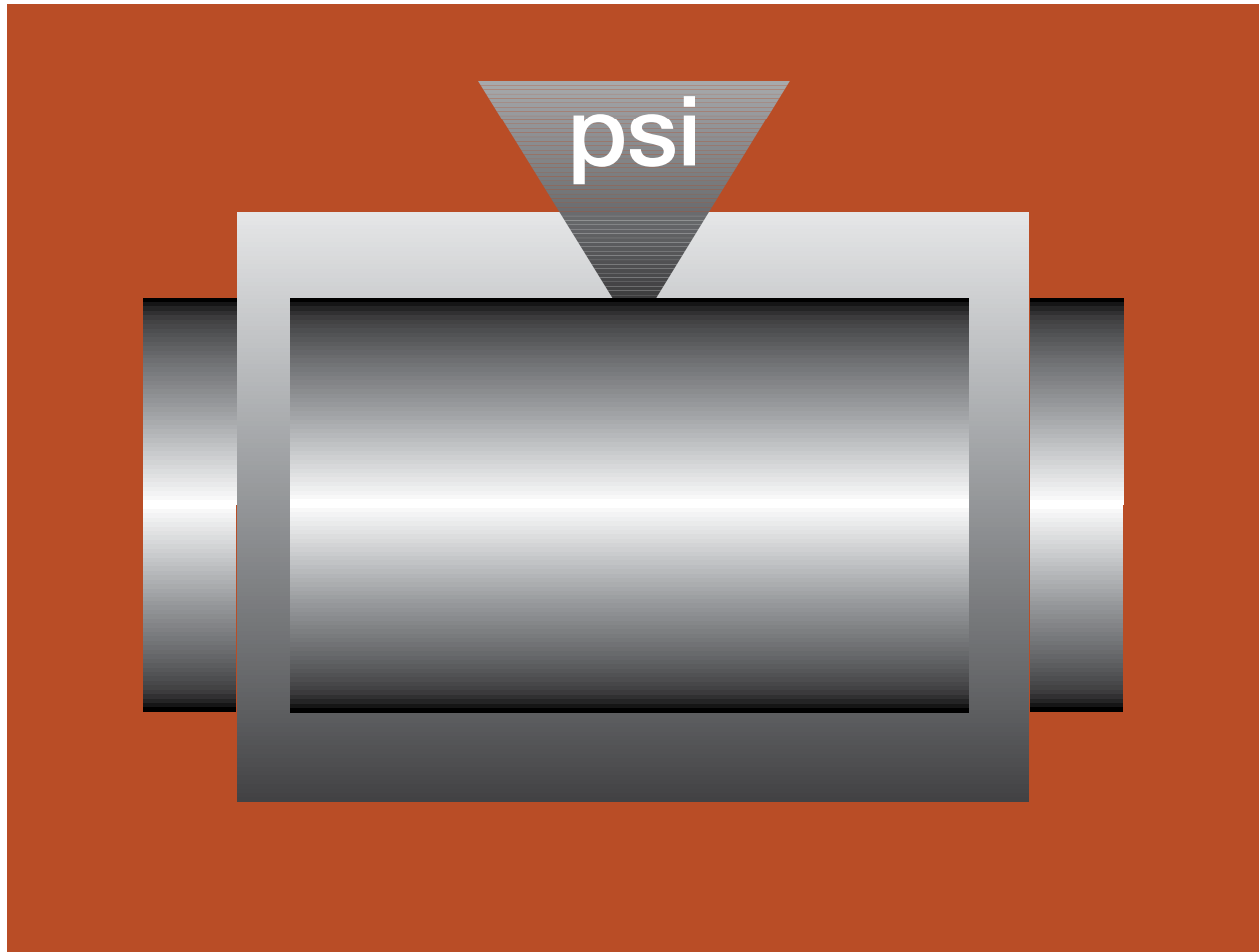
 For tolerance values
please refer to page 521

Type	Dimensions
Q2 F M -06 08 -04	
iglide® material	Inner-Ø d1 (mm)
Form F (flange)	Outer-Ø d2 (mm)
Metric	Length b1 (mm)

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max..	Min.	Max.	Min.	Max.
Q2FM-0507-05	5.0	7.0	11.0	5.0	1.0	5.020	5.068	7.000	7.015	4.970	5.000
Q2FM-0608-06	6.0	8.0	12.0	6.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
Q2FM-0810-03	8.0	10.0	15.0	3.0	1.0	8.025	8.083	10.000	10.015	7.964	8.000
Q2FM-0810-10	8.0	10.0	15.0	10.0	1.0			10.000	10.015	7.964	8.000
Q2FM-1012-10	10.0	12.0	18.0	10.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
Q2FM-1214-12	12.0	14.0	20.0	12.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
Q2FM-1416-05	14.0	16.0	22.0	5.0	1.0	14.032	14.102	16.000	16.018	13.957	14.000
Q2FM-1517-17	15.0	17.0	23.0	17.0	1.0	15.032	15.102	17.000	17.018	14.957	15.000
Q2FM-1618-17	16.0	18.0	24.0	17.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
Q2FM-2023-12	20.0	23.0	30.0	1.0	1.5	20.040	20.124	23.000	23.021	19.948	20.000
Q2FM-2023-21	20.0	23.0	30.0	21.5	1.5			23.000	23.021	19.948	20.000
Q2FM-2528-21	25.0	28.0	35.0	21.5	1.5	25.040	25.124	28.000	28.021	24.948	25.000
Q2FM-3034-37	30.0	34.0	42.0	40.0	2.0	30.040	30.124	34.000	34.025	29.948	30.000
Q2FM-3034-40	30.0	34.0	42.0	40.0	2.0			34.000	34.025	29.948	30.000
Q2FM-3539-40	35.0	39.0	47.0	40.0	2.0	35.050	35.150	39.000	39.025	34.938	35.000
Q2FM-4044-40	40.0	44.0	52.0	40.0	2.0	40.050	40.150	44.000	44.025	39.938	40.000
Q2FM-4550-50	45.0	50.0	58.0	50.0	2.5	45.050	45.150	50.000	50.025	44.938	45.000
Q2FM-5055-10	50.0	55.0	63.0	10.0	2.0	50.050	50.150	55.000	55.030	49.938	50.000
Q2FM-5055-50	50.0	55.0	63.0	50.0	2.0			55.000	55.030	49.938	50.000
Q2FM-6065-60	60.0	65.0	73.0	50.0	2.0	60.060	60.180	65.000	65.030	59.926	60.000
Q2FM-8085-100	80.0	85.0	93.0	100.0	2.5	80.060	80.180	85.000	85.035	79.926	80.000



iglide® TX1

- Up to 29,000 psi static and 20,300 psi dynamic
- Wear resistant and dimensionally stable
- Good media resistance

iglide®
TX1

iglide® TX1 - Heavy duty

Up to 29,000 psi

Self-lubricating and
maintenance-free

Up to 29,010 psi static
and 20,310 dynamic

Wear resistant and
dimensionally stable

Good media resistance

iglide® TX1 offers outstanding rigidity and durability especially under high radial loads during pivoting operations. Thanks to the closed-loop wound structure, excellent dimensional stability is even achieved in cases of major impacts.



- When permanently high static loads occur
- For highly load pivoting motions
- When not only high loads but also high temperatures and media resistance are required



- When loads less than 14,500 psi occur
 - iglide® G300
 - iglide® Q2
 - iglide® Q
- For rotational movements during continuous operation
 - iglide® L280
 - iglide® Z
 - iglide® G300
- For high temperature applications with average load levels
 - iglide® T500
 - iglide® J350
 - iglide® H



Available from stock

Detailed information about delivery time online.



max. +248°F
min. -76°F



Price breaks online

No minimum order.



Ø 20 to 80 mm
more dimensions on request



Typical application areas

- Construction machinery
- Agricultural machines
- Commercial vehicles
- Heavy equipment

iglide® TX1 - Technical Data

 iglide®
TX1

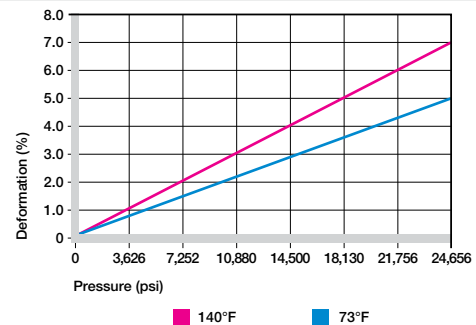
Material Properties Table

General Properties	Unit	iglide® TX1	Testing Method
Density	g/cm ³	2.10	
Color		gray	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.2	DIN 53495
Max. moisture absorption	% weight	0.5	
Coefficient of friction, dynamic against steel	μ	0.09 - 0.37	
pv value, max. (dry)	psi x fpm	26,000	
Mechanical Properties			
Modulus of elasticity	psi	1,740,000	DIN 53457
Tensile strength at 68°F	psi	7,977	DIN 53452
Compressive strength	psi	31,910	
Permissible static surface pressure (68°F)	psi	29,000	
Shore D-hardness		94	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	248	
Max. application temperature, short-term	°F	338	
Min. application temperature	°F	-76	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	3	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 1 x 10 ¹¹	DIN IEC 93
Surface resistance	Ω	> 1 x 10 ¹³	DIN 53482

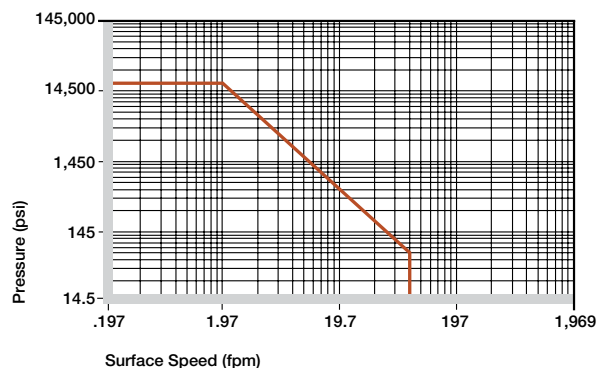
Compressive Strength

With increasing temperatures, the compressive strength of iglide® TX1 plain bearings decreases. At the short-term permitted application temperature of 338°F, the permitted surface pressure is still 14,500 psi. The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this. The graph shows the elastic deformation of iglide® TX1 at radial load.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv value for iglide® TX1 running dry against a steel shaft, at 68°F, mounted in a steel housing

Permissible Surface Speeds

The typical applications for iglide® TX1 plain bearings are high load pivoting motions at comparatively low speeds. However relatively high speeds are still attainable.

The speeds shown in the table are threshold values for low bearing loads. They do not provide any indication of the wear resistance under these parameters.

► Surface speed, Page 64

► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	78	177
Oscillating	39	98
Linear	197	393

Maximum surface speeds

iglide®
TX1

iglide® TX1 - Technical Data

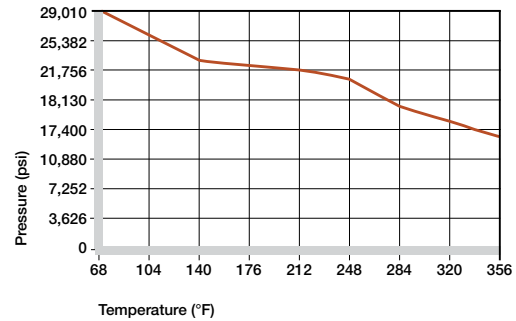
Temperatures

iglide® TX1 is a very temperature resistant material. The long-term upper temperature limit of +248°F permits the broad use in applications typical for the agricultural, utility vehicle or construction equipment sectors. The press-in and press-out forces of iglide® TX1 bearings are extremely high over the entire temperature range. As a result, additional axial securing is generally unnecessary. Although the levels still remain very high, a certain decline can, however, be observed at temperatures above +212°F. In some cases, axial securing is therefore recommended from this temperature. When considering temperatures, the additional frictional heat in the bearing system must be taken into account.

► Application temperatures, Page 67

iglide® TX1	Application Temperature
Minimum	-76°F
Max. long-term	+248°F
Max. short-term	+338°F

Temperature iglide® TX1



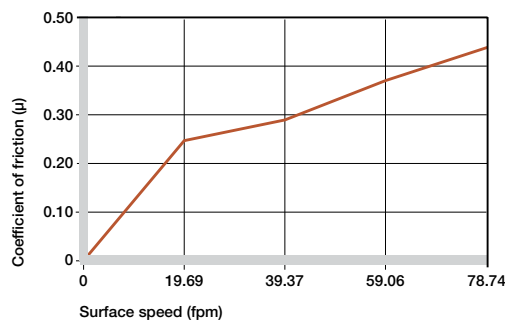
Recommended maximum static surface pressure of iglide® TX1 as a result of the temperature (29,000 psi at 68°F)

Friction and Wear

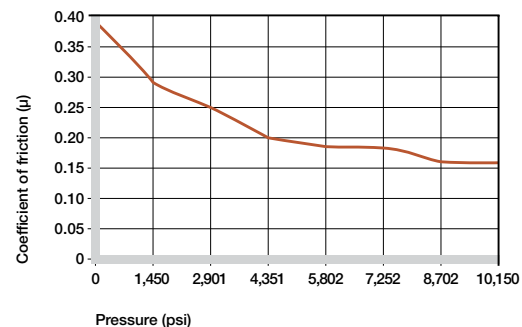
Please note that a sliding surface with a rough surface finish will increase the friction. Shafts that are too smooth also increase the coefficient of friction of the bearing. We recommend shaft surface finishes (Ra) of 0.4 to a maximum of 0.7 µm. Furthermore, the coefficient of friction of iglide® TX1 plain bearings largely depends on the speed and load. As the speed increases, the coefficient of friction will quickly increase as well. With increasing load, the coefficient of friction however sinks continuously.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficient of friction as a result of the surface speed; load = 108 psi constant



Coefficient of friction as a result of the load, v = 1.97 fpm

iglide® TX1	Coefficient of Friction
Dry	0.09 - 0.37
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction for iglide® TX1 against steel (Shaft finish = 40 rms, 50 HRC)

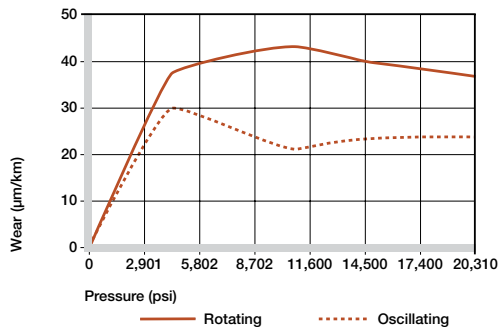
iglide® TX1 - Technical Data

iglide®
TX1

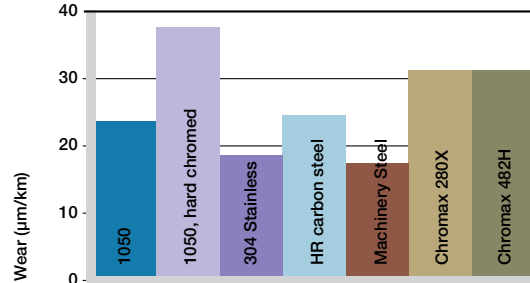
Shaft Materials

In high load applications, we generally recommend the use of hardened shafts. This particularly applies when using iglide® TX1. However, acceptable wear rates are also achieved on soft shafts with heavy-duty pivoting of less than 14,500 psi. The comparison of the wear rate during rotation and pivoting shown in the graph below highlights that the strength of iglide® TX1 lies in heavy-duty pivoting.

► Shaft Materials, Page 71



Wear for oscillating and rotating applications with a 1050 hard chromed shaft

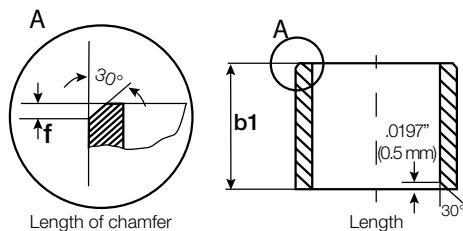


Wear of iglide® TX1, rotating application with different shaft materials, p=108 psi, v=98 fpm

Installation Tolerances

iglide® TX1 plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance & Moisture Absorption

Under normal climatic conditions, the moisture absorption of iglide® TX1 plain bearings is 0.2%. The saturation limit in water is 0.5%.

► Chemical table, Page 1364

Medium	Resistance
Alcohol	0
Hydrocarbon, chlorinated	+
Greases, oils without additives	+
Fuels	+
Weak acids	+
Strong acids	-
Weak alkaline	+
Strong alkaline	-

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® TX1

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364

Radiation Resistance

Plain bearings made from iglide® TX1 are resistant to radiation up to an intensity of applications $2 \cdot 10^2$ Gy.

UV-Resistance

iglide® TX1 plain bearings are permanently resistant to UV radiation.

Vacuum

In a vacuum, any moisture content will outgas. Applications under vacuum conditions are possible to a limited extent.

Electrical Properties

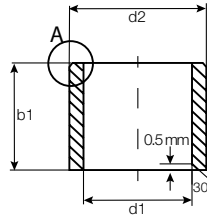
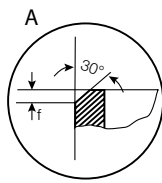
iglide® TX1 plain bearings are electrically insulating

iglide® TX1	
Specific volume resistance	$> 1 \times 10^{11} \Omega\text{cm}$
Surface resistance	$> 1 \times 10^{13} \Omega$

Electrical properties of iglide® TX1

iglide® TX1 - Product Range

Sleeve bearing - Metric

 iglide®
TX1

Order key

Type	Dimensions
TX1 S M	-06 08-06
iglide® material	Form S (sleeve)
	Metric
	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

 For tolerance values
please refer to page 531

 Dimensions according to ISO 3547-1 and special dimensions
 *Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
TX1SM-2025-20	20.0	25.0	20.0	20.020	20.150	25.000	25.021	19.948	20.000
TX1SM-2025-30	20.0	25.0	30.0			25.000	25.021	19.948	20.000
TX1SM-2025-40	20.0	25.0	40.0			25.000	25.021	19.948	20.000
TX1SM-2030-30	20.0	30.0	30.0	20.020	20.150	30.000	30.021	19.948	20.000
TX1SM-2530-20	25.0	30.0	20.0	25.020	25.150	30.000	30.021	24.948	25.000
TX1SM-2530-30	25.0	30.0	30.0			30.000	30.021	24.948	25.000
TX1SM-2530-40	25.0	30.0	40.0			30.000	30.021	24.948	25.000
TX1SM-3035-30	30.0	35.0	30.0	30.020	30.150	35.000	35.021	29.948	30.000
TX1SM-3035-40	30.0	35.0	40.0			35.000	35.021	29.948	30.000
TX1SM-3040-40	30.0	40.0	40.0	30.020	30.150	40.000	40.021	29.948	30.000
TX1SM-4045-40	40.0	45.0	40.0	40.020	40.150	45.000	45.025	39.948	40.000
TX1SM-4050-50	40.0	50.0	50.0	40.025	40.175	50.000	50.025	39.948	40.000
TX1SM-5055-50	50.0	55.0	50.0	50.025	50.175	55.000	55.025	49.938	50.000
TX1SM-5060-60	50.0	60.0	60.0	50.025	50.175	60.000	60.025	49.938	50.000
TX1SM-6065-60	60.0	65.0	60.0	60.025	60.175	65.000	65.025	59.938	60.000
TX1SM-6070-80	60.0	70.0	80.0	60.025	60.175	70.000	70.025	59.938	60.000
TX1SM-7075-60	70.0	75.0	60.0	70.025	70.175	75.000	75.030	69.926	70.000
TX1SM-7080-100	70.0	80.0	100.0	70.050	70.200	80.000	75.030	69.926	70.000
TX1SM-8085-100	80.0	85.0	100.0	80.050	80.200	85.000	85.030	79.926	80.000
TX1SM-8090-100	80.0	90.0	100.0	80.050	80.200	90.000	95.030	79.926	80.000

iglide® Specialists - Advantages



Electrically conductive –
iglide® F
► Page 539



ESD compatible –
iglide® F2
► Page 549



The automotive standard –
iglide® H4
► Page 557



For fast rotation under water –
iglide® UW
► Page 565



The biopolymer –
iglide® N54
► Page 573



V0 rating according to UL94, universal –
iglide® G V0
► Page 581



Versatile and cost-effective –
iglide® J2
► Page 589



Heavy-duty on soft shafts –
iglide® Q290
► Page 597


Special applications

This group brings together the iglide® materials for very special cases. Those who have not yet found a suitable bearing, will find it here.

Electrical conductivity, free from PTFE and silicone or fast rotation under water: An iglide® material for all your requirements.

- Self-lubricating and maintenance-free
- Lightweight
- Good price/performance ratio
- Predictable service life

 **Online product finder**
► www.igus.com/iglide-finder

 max. +392 °F
min. -40 °F

 **8 materials**



 **Ø 2 to 70 mm**
more dimensions on request

iglide® Specialists - Application Examples

Special applications



The low demand for space and freedom from corrosion of iglide® plain bearings qualified them for use in this model.



The requirements profile for plain bearings is extremely demanding. They must be resistant to weather for decades, be able to deal with dirt and moisture, and must be easy to assemble.



By modifying the plastic/metal plain bearing partners to the plain bearing partners plastic/plastic, a conversion of the integral design was achievable.



Hand prosthesis: All the axes involved in the movement are supported by plastic bearings.



The bearings do not have to be lubricated and they dampen the vibrations in the bearing housings without noticeably wearing down.



iglide® plain bearings guarantee smooth valve movement and increase system productivity thanks to reliability and load capacity.

iglide® Bearings - Selection Guide - Main Properties

Special applications



Standard
catalog
range



Bar
stock



speedigus®
material



Long life
in dry
operation



For high
loads



Dirt
resistant



Low
coefficient
of friction



Chemical
resistant

	Standard catalog range	Bar stock	speedigus® material	Long life in dry operation	For high loads	Dirt resistant	Low coefficient of friction	Chemical resistant
iglidur® F	●				●			
iglide® F2	●	●		●		●		
iglide® H4	●	●		●	●		●	●
iglide® UW	●							
iglide® N54	●							
iglide® G V0	●			●		●		
iglide® J2	●	●						
iglide® Q290					●			



Low water
absorption



For under
water use



Edge
pressure



Vibrations
dampening



Food
suitable



Temperatures
up to
+194°F



Temperatures
up to
+302°F

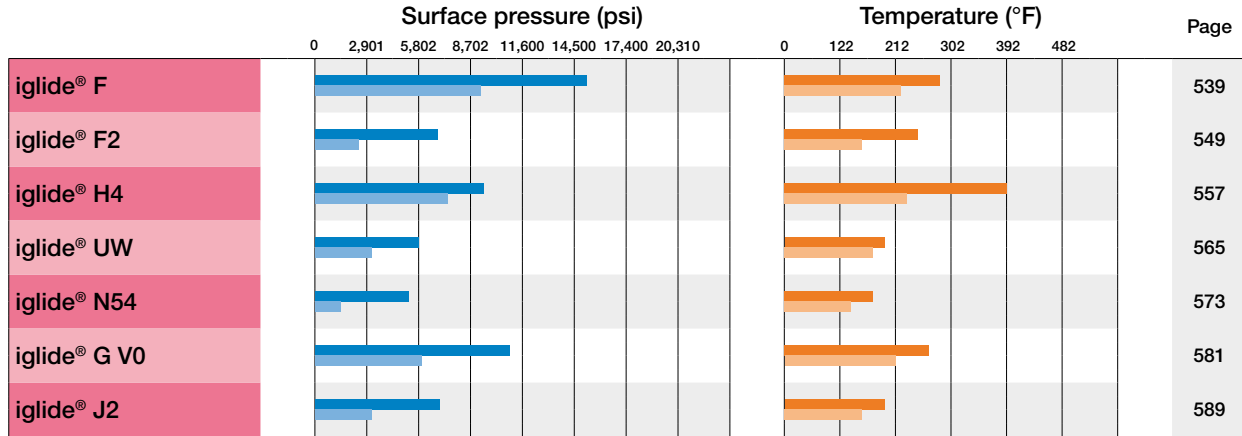


Economic

	Low water absorption	For under water use	Edge pressure	Vibrations dampening	Food suitable	Temperatures up to +194°F	Temperatures up to +302°F	Economic
iglide® F						●		
iglide® F2	●		●			●		
iglide® H4	●	●	●			●	●	●
iglide® UW	●	●				●		●
iglide® N54								
iglide® G V0						●		●
iglide® J2	●		●			●		●
iglide® Q290				●		●		

iglide® Bearings - Selection Guide - Main Properties

Special applications

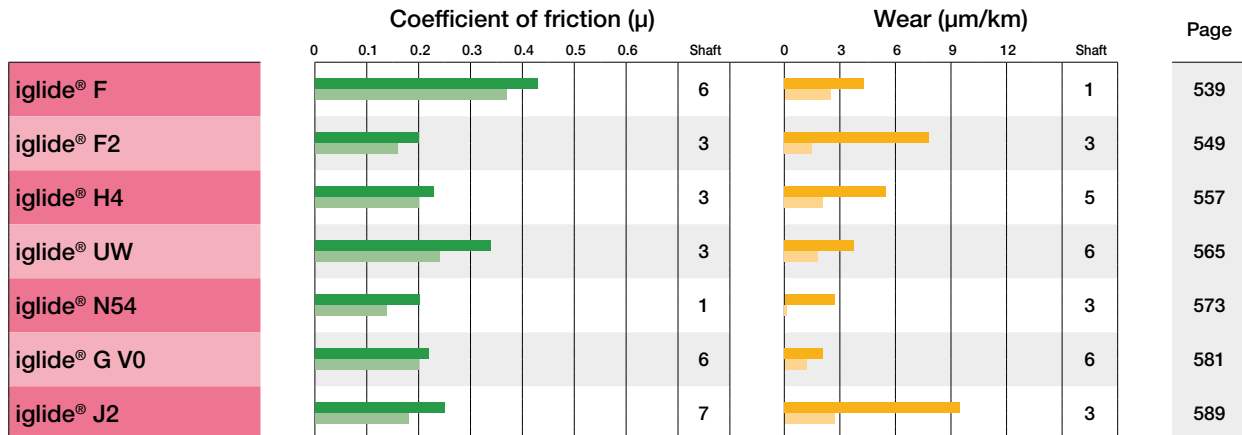


Maximum permissible surface pressure of iglide® bearings at

- +68°F
- +176°F

Important temperature limits of iglide® bearings

- Maximum permissible application temperature, continuous
- Temperature where bearings need to be secured against radial or axial movement in the housing



Coefficients of friction of iglide® bearings against steel rotating, p = 145 psi v = 59 fpm

- Average of all the seven sliding combinations tested
- Coefficient of friction of best combination

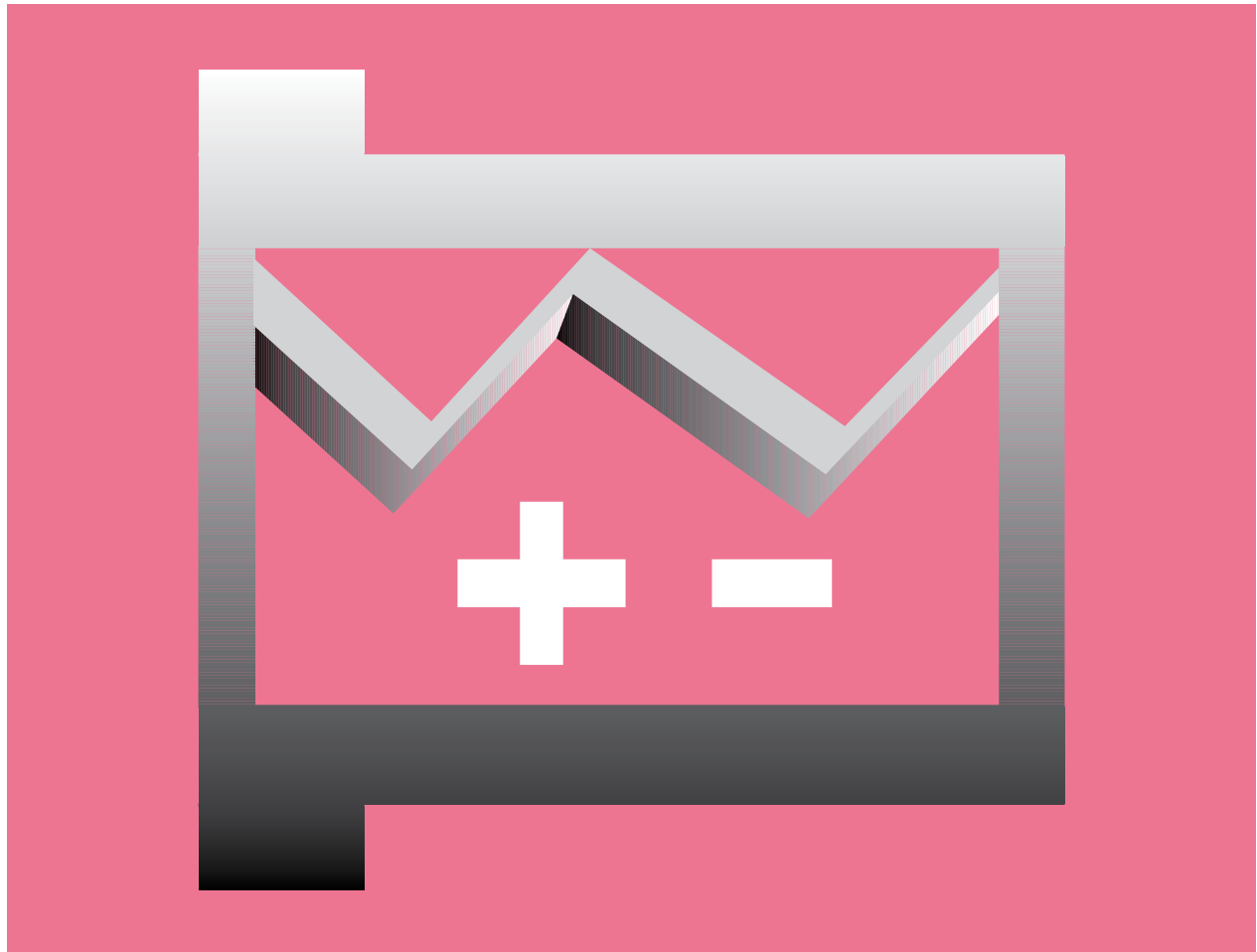
Wear of iglide® bearings against steel rotating, p = 145 psi

- Average of all the seven sliding combinations tested
- Wear of best combination



Shaft material:

1 = 1050, case hardened	4 = Free-cutting steel	7 = 440B Stainless
2 = 1050, case hardened steel, chromed	5 = Machinery Steel	
3 = Hard anodized aluminum	6 = 304 Stainless	



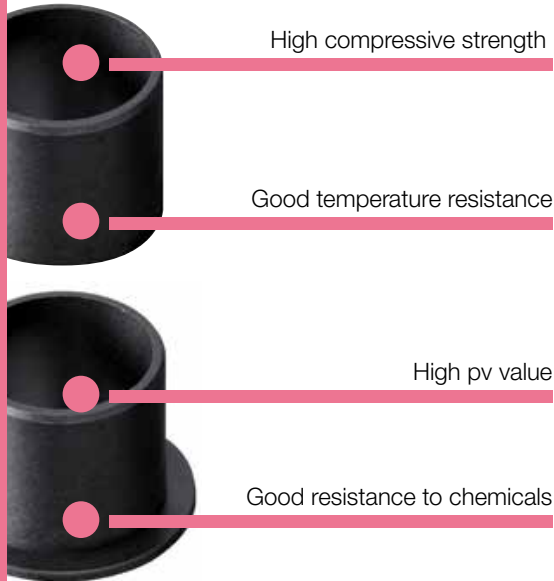
iglide® F

- Electrically conductive
- High compressive strength
- Good temperature resistance
- High pv value
- Good chemical resistance

iglide®
F

iglide® F - Electrically conductive

Highly pressure resistant



Outstanding rigidity and hardness as well as high conductivity: iglide® F bearings can only be used in dry operations to a limited extent, but offer their full mechanical benefits when lubricated with oil or grease.



- When the electrical conductivity is especially important
- For high static loads



- When mechanical reaming of the wall surface is necessary
 - iglide® M250
- When the highest wear resistance is needed
 - iglide® L280
- When very low coefficients of friction when running dry are needed
 - iglide® J
- For underwater applications
 - iglide® H370
- When you need a universal bearing
 - iglide® G300



Available from stock

Detailed information about delivery time online.



max. +284°F
min. -40°F



Price breaks online

No minimum order.



Ø 2 to 70 mm
more dimensions on request



Typical application areas

- Textile technology
- Automotive

iglide® F - Technical Data

 iglide®
F

Material Properties Table

General Properties	Unit	iglide® F	Testing Method
Density	g/cm ³	1.25	
Color		black	
Max. moisture absorption at 73°F / 50% r.h.	% weight	1.8	DIN 53495
Max. moisture absorption	% weight	8.4	
Coefficient of friction, dynamic against steel	μ	0.10 - 0.39	
pv value, max. (dry)	psi x fpm	9,700	

Mechanical Properties	Unit	iglide® F	Testing Method
Modulus of elasticity	psi	1,682,000	DIN 53457
Tensile strength at 68°F	psi	37,710	DIN 53452
Compressive strength	psi	14,210	
Permissible static surface pressure (68°F)	psi	15,230	
Shore D-hardness		84	DIN 53505

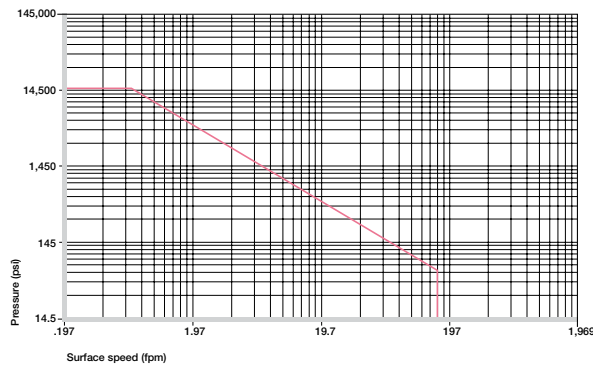
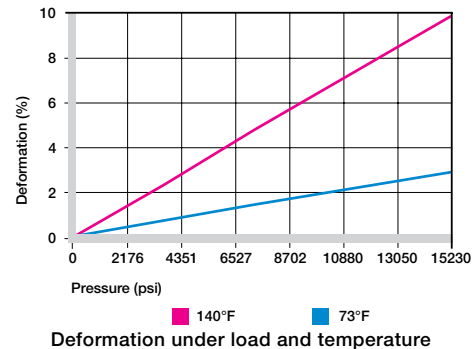
Physical and Thermal Properties	Unit	iglide® F	Testing Method
Max. long-term application temperature	°F	284	
Max. application temperature, short-term	°F	356	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.65	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	12	DIN 53752

Electrical Properties	Unit	iglide® F	Testing Method
Specific volume resistance	Ωcm	< 10 ³	DIN IEC 93
Surface resistance	Ω	< 10 ²	DIN 53482

Compressive Strength

At room temperature, they can handle loads up to 15,225 psi. The graph shows the elastic deformation of iglide® F for radial loads. At the maximum permissible load of approximately 15,225 psi, the deformation is less than 3.5%. Plastic deformation is minimal up to this pressure load.

► Compressive strength, Page 63



Permissible pv values for iglide® F running dry against a steel shaft, at 68°F

Permissible Surface Speeds

The maximum permissible surface speeds depend on the operating time and type of movement. A plain bearing is stressed the most during long-lasting rotational movements. Here, the maximum speed for iglide® F plain bearings is 118 fpm.

The maximum values given in the table can only be achieved at the lowest surface pressure. In practice, these limit values are rarely achieved due to varying application conditions.

► Surface speed, Page 64
 ► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	157	295
Oscillating	118	216
Linear	590	1181

Maximum surface speeds

iglide®
F

iglide® F - Technical Data

Temperatures

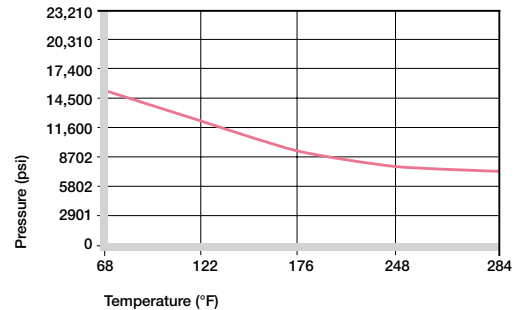
The ambient temperatures greatly affect the properties of plain bearings. The maximum permissible short-term temperature is 356°F. In long-term operation, 284°F may not be exceeded.

With increasing temperatures, the compressive strength of iglide® F plain bearings decreases. The graph shows this relationship. The wear also increases.

► Application temperatures, Page 67

iglide® F	Application Temperature
Minimum	-40°F
Max. long-term	+284°F
Max. short-term	+356°F
Additional axial securing	+221°F

Temperature iglide® F



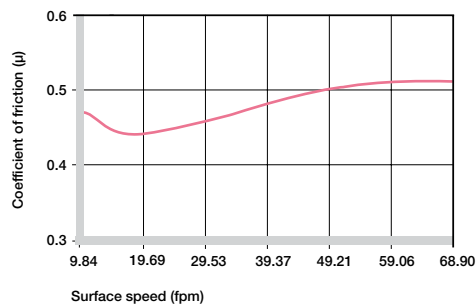
Recommended maximum permissible static surface pressure of iglide® F as a result of the temperature

Friction and Wear

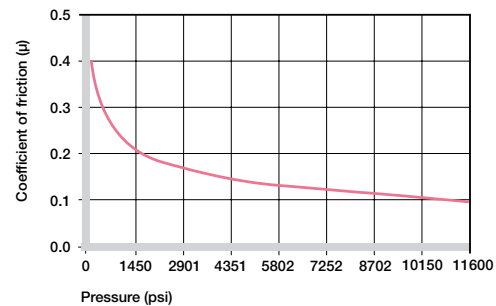
In dry operation, the coefficients of friction of iglide® F bearings are not as favorable as those of many other iglide® materials. However iglide® bearings can be lubricated without any problems, and iglide® F bearings attain excellent results among the lubricated iglide® bearings.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® F as a function of the running speed; p = 108 psi



Coefficients of friction of iglide® F as a function of the load, v = 1.96 fpm

iglide® F	Coefficient of Friction
Dry	0.10 - 0.39
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® F against steel (Shaft finish = 40 rms, 50 HRC)

iglide® F - Technical Data

iglide®
F

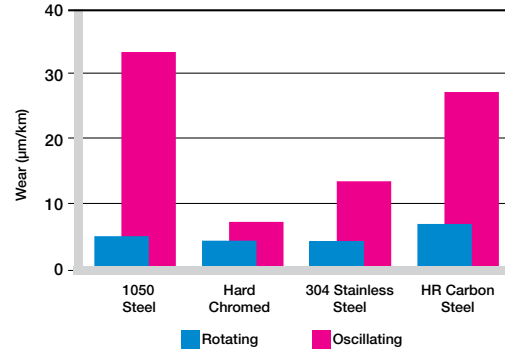
Shaft Materials

The graphs show results of testing different shaft materials with plain bearings made of iglide® F.

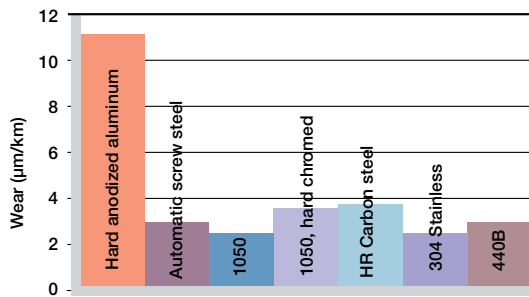
In the lowest load range, the hard-chromed shaft proves to be the best partner in rotating applications with iglide® F plain bearings.

The behavior is different in oscillating movements. With much higher wear values than for rotation, the 303 Stainless Steel shaft and the hard-chromed shaft are better than the Cold Rolled Steel shaft even at 290 psi. If the shaft material you plan to use is not contained in this list, please contact us

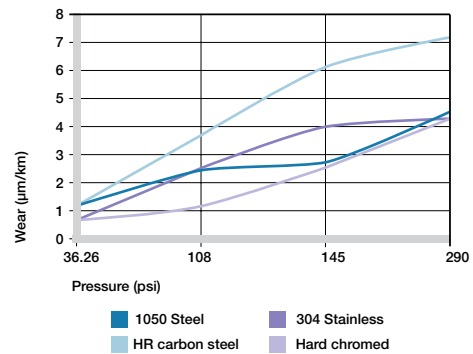
► Shaft Materials, Page 71



Wear with different shaft materials, oscillating and rotating movement p = 290 psi



Wear of iglide® F, rotating applications with different shaft materials, p=108 psi, v=98 fpm



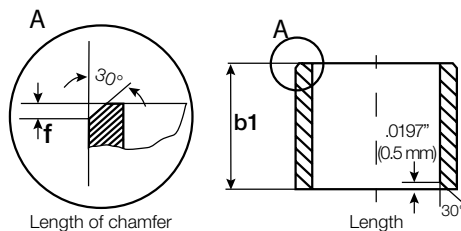
Wear of iglide® F with different shaft materials in rotational applications, as a function of the pressure

Installation Tolerances

iglide® F plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

Please contact an iglide® technical expert for support.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		
Length (inches)	Tolerance (h13) (inches)	Length of Chamfer (f) Based on d1
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		
Length (mm)	Tolerance (h13) (mm)	Length of Chamfer (f) Based on d1
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance & Moisture Absorption

iglide® F plain bearings have good chemical resistance. They have a high resistance to lubricants, even at high temperatures (around 248°F). Thus, iglide® F plain bearings are especially suited for applications that must run under lubrication - possibly because of different structural components. iglide® F is not attacked by most weak organic and inorganic acids.

The moisture absorption of iglide® F plain bearings is approximately 1.8% in standard atmosphere. The saturation limit in water is 8.4%. This must be taken into account along with the other applicable conditions.

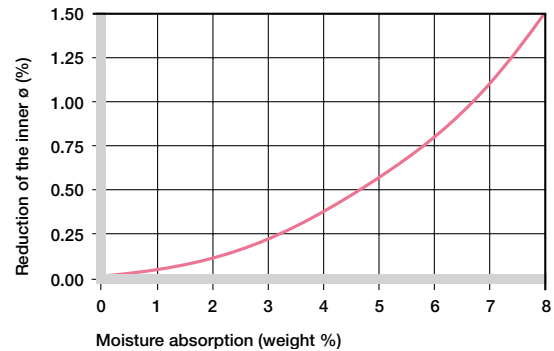
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+ to 0
Hydrocarbon, chlorinated	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to -
Strong acids	-
Weak alkaline	+
Strong alkaline	+ to 0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® F

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® F plain bearings

Radiation Resistance

Plain bearings made from iglide® F are resistant to radiation up to an intensity of 3×10^2 Gy.

UV-Resistance

iglide® F plain bearings are permanently resistance to UV radiation.

Vacuum

In a vacuum environment, existing moisture is released as vapor. Therefore, only dehumidified bearings made of iglide® F are suitable for the vacuum.

Electrical Properties

In contrast to most other iglide® materials, iglide® F plain bearings are electrically conducting.

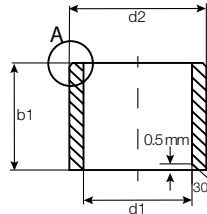
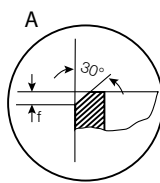
iglide® F

Specific volume resistance	> $10^3 \Omega\text{cm}$
Surface resistance	> $10^2 \Omega$

Electrical properties of iglide® F

iglide® F - Product Range

Sleeve bearing - Metric

 iglide®
F

Order key

Type	Dimensions
F	S M -06 08-06
iglide® material	Form S (sleeve)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

 For tolerance values
please refer to page 543

Dimensions according to ISO 3547-1 and special dimensions

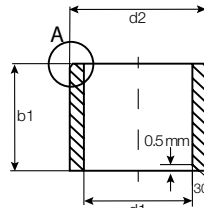
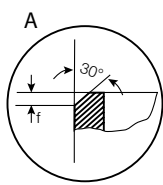
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
FSM-0203-03	2.0	3.5	3.0	2.020	2.080	3.500	3.510	1.975	2.000
FSM-0304-03	3.0	4.5	3.0	3.020	3.080	4.500	4.512	2.970	3.000
FSM-0405-04	4.0	5.5	4.0	4.030	4.105	5.500	5.512	3.970	4.000
FSM-0507-05	5.0	7.0	5.0	5.030	5.105	7.000	7.015	4.964	5.000
FSM-0507-08	5.0	7.0	8.0			7.000	7.015	4.964	5.000
FSM-0608-06	6.0	8.0	6.0	6.030	6.105	8.000	8.015	5.964	6.000
FSM-0608-08	6.0	8.0	8.0			8.000	8.015	5.964	6.000
FSM-0608-10	6.0	8.0	10.0			8.000	8.015	5.964	6.000
FSM-0608-13	6.0	8.0	13.8			8.000	8.015	5.964	6.000
FSM-0709-10	7.0	9.0	10.0	7.040	7.130	9.000	9.015	6.964	7.000
FSM-0709-12	7.0	9.0	12.0			9.000	9.015	6.964	7.000
FSM-0810-08	8.0	10.0	8.0	8.040	8.130	10.000	10.015	7.964	8.000
FSM-0810-10	8.0	10.0	10.0			10.000	10.015	7.964	8.000
FSM-0810-15	8.0	10.0	15.0			10.000	10.015	7.964	8.000
FSM-1012-06	10.0	12.0	9.0	10.040	10.130	12.000	12.018	9.957	10.000
FSM-1012-09	10.0	12.0	9.0			12.000	12.018	9.957	10.000
FSM-1012-10	10.0	12.0	10.0			12.000	12.018	9.957	10.000
FSM-1214-10	12.0	14.0	10.0	12.050	12.160	14.000	14.018	11.957	12.000
FSM-1214-15	12.0	14.0	15.0			14.000	14.018	11.957	12.000
FSM-1315-20	13.0	15.0	20.0	13.050	13.160	15.000	15.018	12.957	13.000
FSM-1416-15	14.0	16.0	15.0	14.050	14.160	16.000	16.018	13.957	14.000
FSM-1517-15	15.0	17.0	15.0	15.050	15.160	17.000	17.018	14.957	15.000
FSM-1517-20	15.0	17.0	20.0			17.000	17.018	14.957	15.000
FSM-1618-15	16.0	18.0	15.0	16.050	16.160	18.000	18.018	15.957	16.000
FSM-1820-12	18.0	20.0	12.0	18.050	18.160	20.000	20.021	17.948	18.000
FSM-1820-15	18.0	20.0	15.0			20.000	20.021	17.948	18.000
FSM-1820-20	18.0	20.0	20.0			20.000	20.021	17.948	18.000
FSM-2022-14	20.0	22.0	14.5	20.065	20.195	22.000	22.021	19.948	20.000
FSM-2022-20	20.0	22.0	20.0			22.000	22.021	19.948	20.000
FSM-2023-15	20.0	23.0	15.0	20.065	20.195	23.000	23.021	19.948	20.000
FSM-2023-20	20.0	23.0	20.0			23.000	23.021	19.948	20.000
FSM-2225-15	22.0	25.0	15.0	22.065	22.195	25.000	25.021	22.948	22.000
FSM-2528-20	25.0	28.0	20.0	25.065	25.195	28.000	28.021	24.948	25.000
FSM-2832-20	28.0	32.0	20.0	28.065	28.195	32.000	32.025	27.948	28.000
FSM-2832-30	28.0	32.0	30.0			32.000	32.025	27.948	28.000
FSM-3034-20	30.0	34.0	20.0	30.065	30.195	34.000	34.025	29.938	30.000
FSM-3034-30	30.0	34.0	30.0			34.000	34.025	29.938	30.000

iglide®
F

iglide® F - Product Range

Sleeve bearing - Metric



Order key

Type	Dimensions
F	S M -06 08-06
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

For tolerance values
please refer to page 543

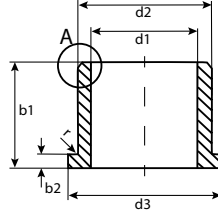
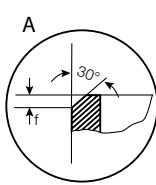
Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
FSM-3034-40	30.0	34.0	40.0	30.065	30.195	34.000	34.025	29.938	30.000
FSM-3236-30	32.0	36.0	30.0	32.080	32.240	36.000	36.025	31.938	32.000
FSM-3539-30	35.0	39.0	30.0	35.080	35.240	39.000	39.025	34.938	35.000
FSM-3539-40	35.0	39.0	40.0			39.000	39.025	34.938	35.000
FSM-4044-30	40.0	44.0	30.0	40.080	40.240	44.000	44.025	39.938	40.000
FSM-4044-50	40.0	44.0	50.0			44.000	44.025	39.938	40.000
FSM-4550-50	45.0	50.0	50.0	45.080	45.240	50.000	50.025	44.938	45.000
FSM-5055-40	50.0	55.0	40.0	50.080	50.240	55.000	55.030	49.938	50.000
FSM-5560-50	55.0	60.0	50.0	55.100	55.290	60.000	60.030	54.926	55.000
FSM-6065-60	60.0	65.0	60.0	60.100	60.290	65.000	65.030	59.926	60.000

iglide® F - Product Range

Flange bearing - Metric

 iglide®
F

Order key

Type	Dimensions
F	F M -06 08-06
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

 $r = \max. 0.5$

 For tolerance values
please refer to page 543

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
FFM-0405-04	4.0	5.5	9.5	4.0	0.75	4.030	4.105	5.000	5.012	3.970	4.000
FFM-0405-06	4.0	5.5	9.5	6.0	0.75			5.000	5.012	3.970	4.000
FFM-0507-05	5.0	7.0	11.0	5.0	1.0	5.030	5.105	7.000	7.015	4.970	5.000
FFM-0608-06	6.0	8.0	12.0	6.0	1.0			8.000	8.015	5.970	6.000
FFM-0608-08	6.0	8.0	12.0	8.0	1.0	6.030	6.105	8.000	8.015	5.970	6.000
FFM-0810-06	8.0	10.0	15.0	6.0	1.0			10.000	10.015	7.964	8.000
FFM-0810-09	8.0	10.0	15.0	9.0	1.0	8.040	8.130	10.000	10.015	7.964	8.000
FFM-1012-06	10.0	12.0	18.0	6.0	1.0			12.000	12.018	9.964	10.000
FFM-1012-08	10.0	12.0	18.0	8.0	1.0	10.040	10.130	12.000	12.018	9.964	10.000
FFM-1012-09	10.0	12.0	18.0	9.0	1.0			12.000	12.018	9.964	10.000
FFM-1012-15	10.0	12.0	18.0	15.0	1.0			12.000	12.018	9.964	10.000
FFM-1012-18	10.0	12.0	18.0	18.0	1.0			12.000	12.018	9.964	10.000
FFM-1214-09	12.0	14.0	20.0	9.0	1.0	12.050	12.160	14.000	14.018	11.957	12.000
FFM-1214-12	12.0	14.0	20.0	12.0	1.0			14.000	14.018	11.957	12.000
FFM-1416-12	14.0	16.0	22.0	12.0	1.0	14.050	14.160	16.000	16.018	13.957	14.000
FFM-1416-17	14.0	16.0	22.0	17.0	1.0			16.000	16.018	13.957	14.000
FFM-1517-12	15.0	17.0	23.0	12.0	1.0	15.050	15.160	17.000	17.018	14.957	15.000
FFM-1517-17	15.0	17.0	23.0	17.0	1.0			17.000	17.018	14.957	15.000
FFM-1618-17	16.0	18.0	24.0	17.0	1.0	16.050	16.160	18.000	18.018	15.957	16.000
FFM-1820-12	18.0	20.0	26.0	12.0	1.0	18.050	18.160	20.000	20.021	17.957	18.000
FFM-1820-17	18.0	20.0	26.0	17.0	1.0			20.000	20.021	17.957	18.000
FFM-2023-21	20.0	23.0	30.0	21.0	1.5	20.065	20.195	23.000	23.021	19.948	20.000
FFM-2528-21	25.0	28.0	35.0	21.0	1.5	25.065	25.195	28.000	28.021	24.948	25.000
FFM-3034-26	30.0	34.0	42.0	26.0	2.0	30.065	30.195	34.000	34.025	29.948	30.000
FFM-3236-26	32.0	36.0	45.0	26.0	2.0	32.080	32.240	36.000	36.025	31.938	32.000
FFM-3539-06	35.0	39.0	47.0	6.0	2.0	35.080	35.240	39.000	39.025	34.938	35.000
FFM-3539-16	35.0	39.0	47.0	16.0	2.0			39.000	39.025	34.938	35.000
FFM-3539-26	35.0	39.0	47.0	26.0	2.0			39.000	39.025	34.938	35.000
FFM-4044-30	40.0	44.0	52.0	30.0	2.0	40.080	40.240	44.000	44.025	39.938	40.000
FFM-4044-40	40.0	44.0	52.0	40.0	2.0			44.000	44.025	39.938	40.000
FFM-4550-50	45.0	50.0	58.0	50.0	2.0	45.080	45.240	50.000	50.025	44.935	45.000
FFM-5055-10	50.0	55.0	63.0	10.0	2.0	50.080	50.240	55.000	55.030	49.938	50.000
FFM-5055-40	50.0	55.0	63.0	40.0	2.0			55.000	55.030	49.938	50.000
FFM-6065-40	60.0	65.0	73.0	40.0	2.0	60.100	60.290	65.000	65.030	59.926	60.000
FFM-7075-40	70.0	75.0	83.0	40.0	2.0	70.100	70.290	75.000	75.030	69.926	70.000

iglide®
F

iglide® F - Notes



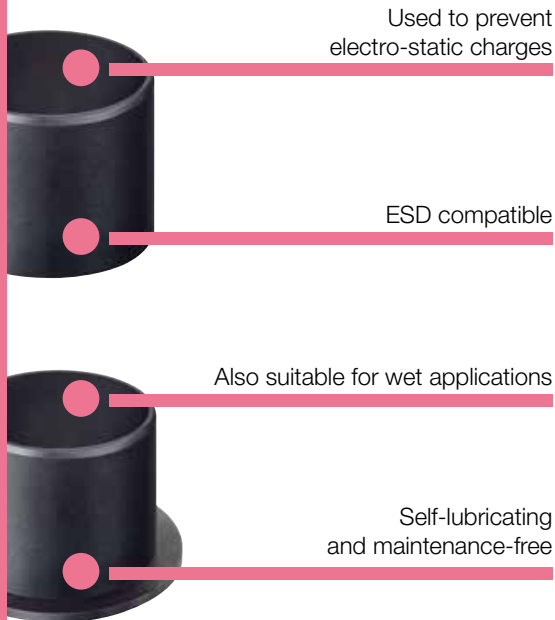
iglide® F2

- Used to prevent electrostatic charges
- Suitable for wet applications

iglide®
F2

iglide® F2 - ESD compatible

Wear resistant and conductive



iglide® F2 helps to prevent electrostatic charging. Good resistance to media and temperature, suitable even in wet conditions due to low moisture absorption and good universal wear values pave the way for a wide range of applications.



- When the bearing should be electrically discharging
- When a universal bearing is required for a broad application range



- When a universal bearing without static discharge capacity is required
 - iglide® G300
 - iglide® P
- For underwater applications
 - iglide® H370
- When extremely high wear resistance is required
 - iglide® J
 - iglide® L280



Available from stock

Detailed information about delivery time online.



max. +248°F
min. -40°F



Price breaks online

No minimum order.



Ø 4 to 20 mm
more dimensions on request



Typical application areas

- Mechanical engineering
- Jig construction
- Material handling

iglide® F2 - Technical Data

 iglide®
F2

Material Properties Table

General Properties	Unit	iglide® F2	Testing Method
Density	g/cm ³	1.52	
Color		black	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.2	DIN 53495
Max. moisture absorption	% weight	0.4	
Coefficient of friction, dynamic against steel	μ	0.16 - 0.22	
pv value, max. (dry)	psi x fpm	8,750	

Mechanical Properties

Modulus of elasticity	psi	1,076,000	DIN 53457
Tensile strength at 68°F	psi	13,490	DIN 53452
Compressive strength	psi	8,847	
Permissible static surface pressure (68°F)	psi	6,817	
Shore D-hardness		72	DIN 53505

Physical and Thermal Properties

Max. long-term application temperature	°F	248	
Max. application temperature, short-term	°F	329	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.61	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	5	DIN 53752

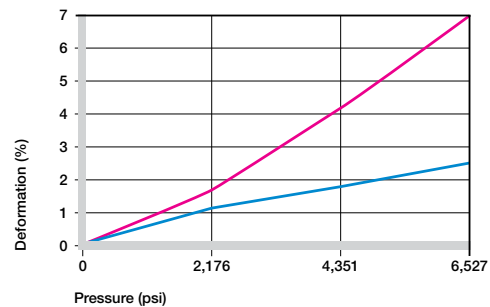
Electrical Properties

Specific volume resistance	Ωcm	< 10 ⁹	DIN IEC 93
Surface resistance	Ω	< 10 ⁹	DIN 53482

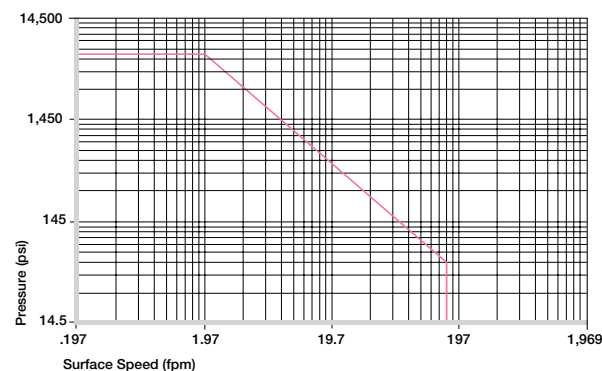
Compressive Strength

With increasing temperatures, the compressive strength of iglide® F2 bearings decreases. The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this. The graph shows the elastic deformation of iglide® F2 at radial loads. A plastic deformation can be negligible up to this value. However, it is also dependent on the service time.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® F2 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

The maximum permitted surface speeds are based on the operation period and the type of motion. A bearing is the most stressed in long-term rotating motions. Here the maximum speed for the iglide® F2 bearing is 157 fpm. The maximum values specified in the table are not often attained in practice.

- Surface speed, Page 64
- pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	157	275
Oscillating	137	216
Linear	590	984

Maximum surface speeds

iglide® F2 - Technical Data

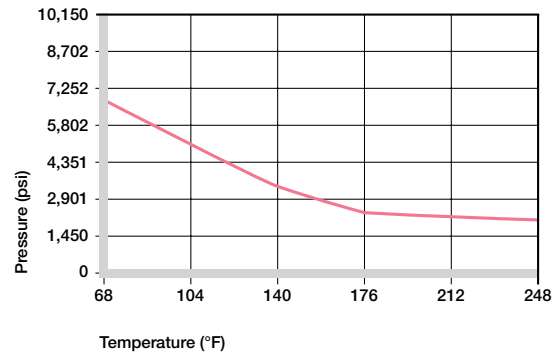
Temperatures

The ambient temperatures strongly influence the performance of the bearings. With increasing temperatures, the compressive strength of iglide® F2 bearings decreases. The graph shows this inverse relationship. At temperatures over +158°F an additional securing is required.

► Application temperatures, Page 67

iglide® F2	Application Temperature
Minimum	-40°F
Max. long-term	+248°F
Max. short-term	+329°F
Additional axial securing	+158°F

Temperature limits for iglide® F2

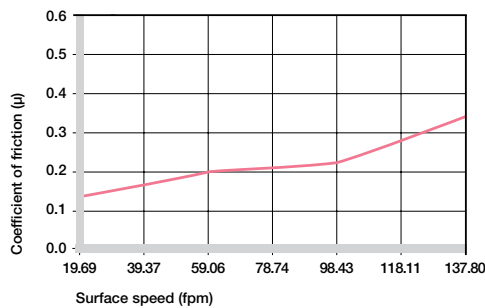


Recommended maximum permissible static surface pressure of iglide® F2 as a result of the temperature

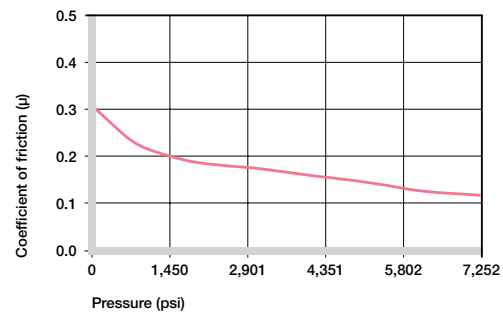
Friction and Wear

Coefficient of friction and wear resistance alter with the application parameters (See charts below).

- Coefficients of friction and surfaces, Page 68
- Wear resistance, Page 69



Coefficients of friction of iglide® F2 as a function of the running speed; p = 108 psi



Coefficients of friction of iglide® F2 as a function of the running speed; p = 108 psi

iglide® F2	Coefficient of Friction
Dry	0.16 - 0.22
Grease	0.10
Oil	0.05
Water	0.03

Coefficient of friction of iglide® F2 against steel (Shaft finish = 40 rms, 50 HRC)

iglide® F2 - Technical Data

iglide®
F2

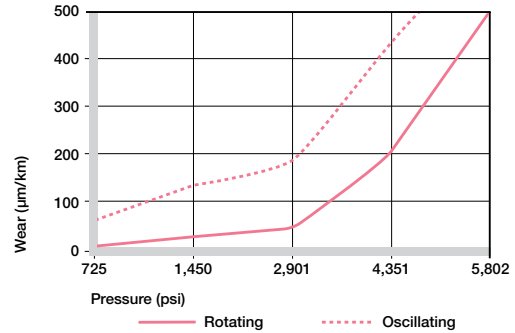
Shaft Materials

The graphs show the results of testing different shaft materials with plain bearings made from iglide® F2.

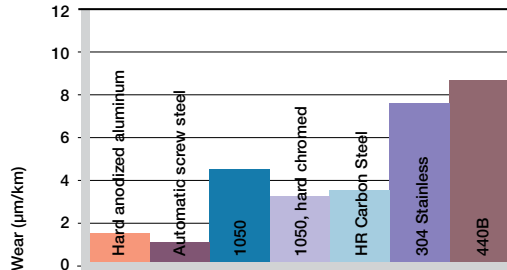
With lower loads, cutting steel and hard anodized aluminum shafts, as well as machinery steel and hard-chromed steel shafts prove to be the most favorable in rotating applications with iglide® F2 plain bearings with respect to wear.

The graph to the right shows a significantly less wear in rotation compared to pivoting movements over the entire load range.

► Shaft Materials, Page 71



Wear for oscillating and rotating applications with shaft material 1050 hard chromed and ground steel, as a function of the pressure



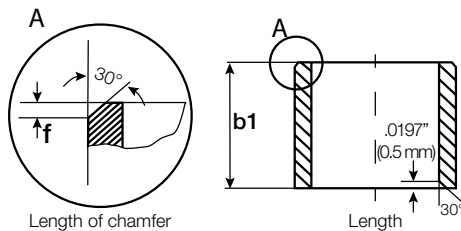
Wear of iglide® F2, rotating applications with different shaft materials, p = 108 psi, v = 98 fpm

Installation Tolerances

iglide® F2 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

Please contact an iglide® technical expert for support.

- Tolerance table, Page 75
- Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

iglide® F2 - Technical Data

Chemical Resistance

iglide® F2 plain bearings have a good resistance to most chemicals. They are resistant to most lubricants. iglide® F2 plain bearings are not attacked by most weak organic and inorganic acids.

► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	-
Greases, oils without additives	+
Fuels	+
Weak acids	0
Strong acids	-
Weak alkaline	-
Strong alkaline	-

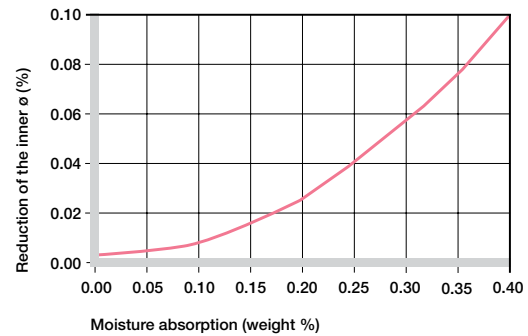
+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® F2

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364

Moisture absorption

The humidity absorption of iglide® F2 bearings amounts to about 0.2% in standard climatic conditions. The saturation limit in water is 0.4%.



Effect of moisture absorption on iglide® F2 plain bearings

Radiation Resistance

Plain bearings made from iglide® F2 are resistant to radiation up to an intensity of applications $3 \cdot 10^2$ Gy.

UV-Resistance

iglide® F2 plain bearings are partially resistant to UV radiation.

Vacuum

iglide® F2 plain bearings outgas in a vacuum. Use in vacuum is only possible with dehumidified bearings.

Electrical Properties

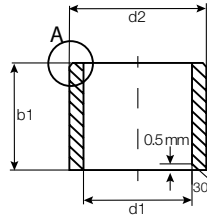
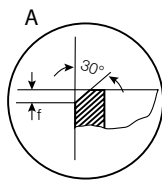
iglide® F2 plain bearings are electrically conductive.

iglide® F2	
Specific volume resistance	< $10^9 \Omega\text{cm}$
Surface resistance	< $10^9 \Omega$

Electrical properties of iglide® F2

iglide® F2 - Product Range

Sleeve bearing - Metric

 iglide®
F2

Order key

Type	Dimensions
F2 S M	-04 05-04
iglide® material	Form S (sleeve)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

 For tolerance values
please refer to page 553

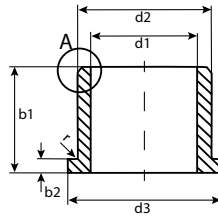
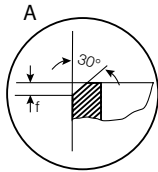
 Dimensions according to ISO 3547-1 and special dimensions
 *Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
F2SM-0507-10	5.0	7.0	10.0	5.020	5.068	7.000	7.015	4.970	5.000
F2SM-0608-06	6.0	8.0	6.0	6.020	6.058	8.000	8.015	5.970	6.000
F2SM-0709-10	7.0	9.0	10.0	7.025	7.083	9.000	9.015	6.964	7.000
F2SM-0810-10	8.0	10.0	10.0	8.025	8.083	10.000	10.015	7.964	8.000
F2SM-1012-10	10.0	12.0	10.0	10.025	10.083	12.000	12.018	9.964	10.000
F2SM-1012-15	10.0	12.0	15.0			12.000	12.018	9.964	10.000
F2SM-1214-12	12.0	14.0	12.0	12.032	12.102	14.000	14.018	11.957	12.000
F2SM-1618-15	16.0	18.0	15.0	16.032	16.102	18.000	18.018	15.957	16.000
F2SM-2023-20	20.0	23.0	20.0	20.040	20.124	23.000	23.021	19.948	20.000

iglide®
F2

iglide® F2 - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
F2	F M -04 05 -04
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

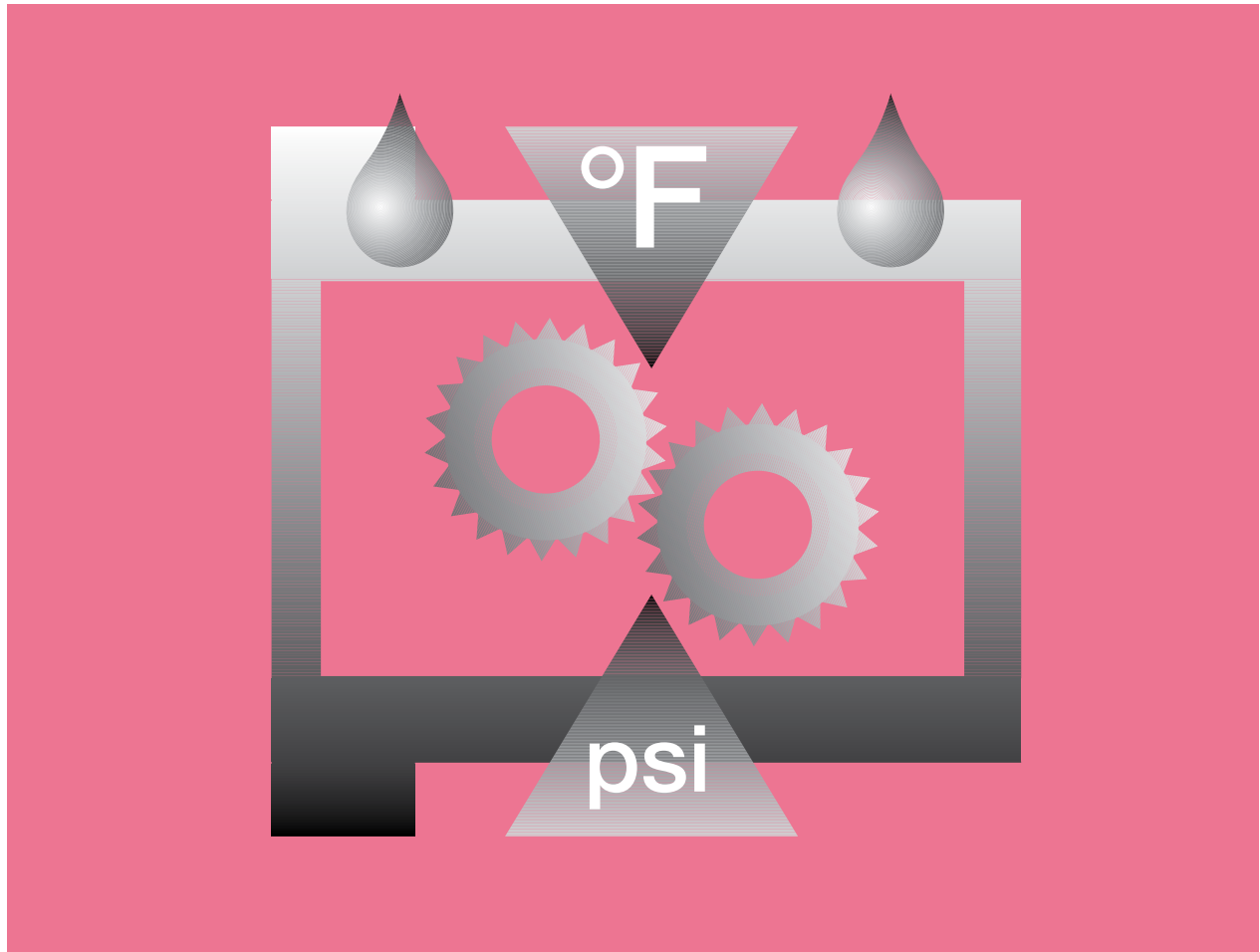
 $r = \max. 0.5$

 For tolerance values
please refer to page 553

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
F2FM-0405-04	4.0	5.5	9.5	4.0	0.75	4.010	4.058	5.000	5.012	3.970	4.000
F2FM-0608-06	6.0	8.0	12.0	6.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
F2FM-0810-10	8.0	10.0	15.0	10.0	1.0	8.025	8.083	10.000	10.015	7.964	8.000
F2FM-1012-10	10.0	12.0	18.0	10.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
F2FM-1214-12	12.0	14.0	20.0	12.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
F2FM-1618-17	16.0	18.0	24.0	17.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
F2FM-2023-21	20.0	23.0	30.0	21.0	1.5	20.040	20.124	23.000	23.021	19.948	20.000



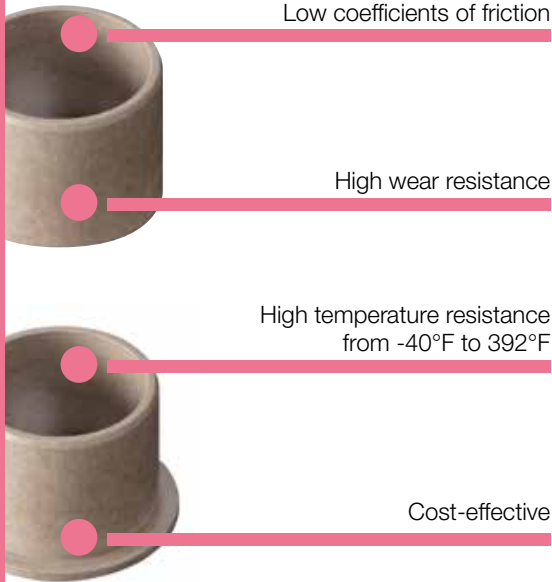
iglide[®] H4

- Low coefficients of friction
- High wear resistance
- High temperature resistance -40°F to +392°F
- High chemical resistance

iglide®
H4

iglide® H4 - The automotive standard

For temperatures up to 392°F



Very cost-efficient, high temperature material with good dry-operation properties and “engine compartment resistance”.



- For applications with fuel, oil, etc.
- When high wear resistance is required
- For low coefficients of friction
- For high temperature resistance from -40°F to 392°F
- For high chemical resistance



- For underwater use
 - iglide® H370
- When a cost-effective universal bearing is required
 - iglide® G300
- When you need a temperature and media-resistant bearing for static applications
 - iglide® H2



Available from stock

Detailed information about delivery time online.



max. +392°F
min. -40°F



Price breaks online

No minimum order.



Ø 4 to 40 mm
more dimensions on request



Typical application areas

- Automotive
- Automation
- Packaging

iglide® H4 - Technical Data

 iglide®
H4

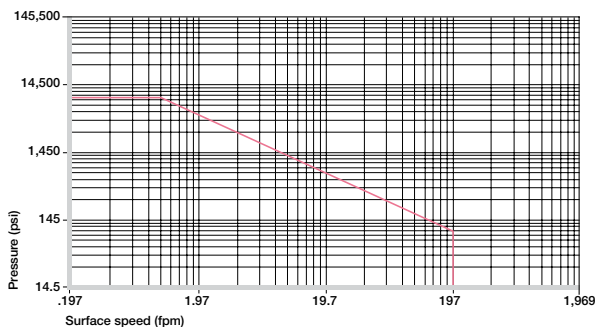
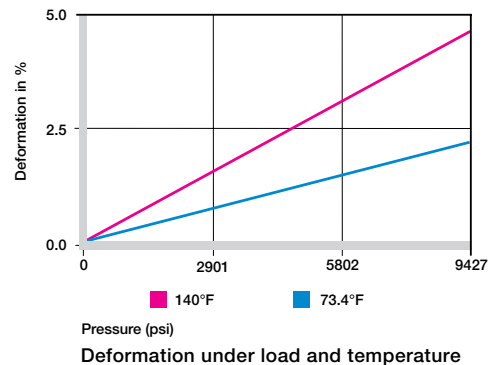
Material Properties Table

General Properties	Unit	iglide® H4	Testing Method
Density	g/cm ³	1.79	
Color		brown	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.1	DIN 53495
Max. moisture absorption	% weight	0.2	
Coefficient of friction, dynamic against steel	μ	0.08 - 0.25	
pv value, max. (dry)	psi x fpm	19,500	
Mechanical Properties			
Modulus of elasticity	psi	1,088,000	DIN 53457
Tensile strength at 68°F	psi	17,400	DIN 53452
Compressive strength	psi	7,252	
Permissible static surface pressure (68°F)	psi	9,427	
Shore D-hardness		80	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	392	
Max. application temperature, short-term	°F	464	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	5	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹³	DIN IEC 93
Surface resistance	Ω	> 10 ¹²	DIN 53482

Compressive Strength

The graph shows the elastic deformation of iglide® H4 when subjected to radial loads. Among the iglide® H materials, iglide® H4 is the one with the lowest modulus of elasticity. This is beneficial for applications with edge loads and vibrations. Where a high static compressive strength is concerned, the other iglide® H bearing types are advantageous.

► Compressive strength, Page 63



Permissible pv values for iglide® H4 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

Compared to the iglide® H2 plain bearings, which are also cost-effective, iglide® H4 shows a greatly reduced coefficient of friction. This explains the higher permissible surface speeds that can be achieved with these bearings. When running dry, constant speeds of up to 138 fpm are possible. The speeds specified in the table are limit values for the lowest bearing loads. In the case of higher loads, the permissible speed decreases with increasing load due to the limitations of the pv value.

► Surface speed, Page 64
 ► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	197	295
Oscillating	138	216
Linear	197	393

Maximum surface speeds

iglide®
H4

iglide® H4 - Technical Data

Temperatures

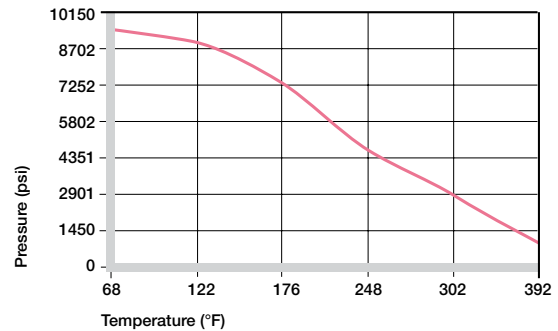
iglide® H4 is a temperature resistant material. The short-term maximum permissible temperature is 464°F, and therefore allows for the use of iglide® H4 plain bearings in applications where the bearings for instance undergo a drying process without further loading. The compressive strength of iglide® H4, however, decreases with increasing temperatures.

The graph clarifies this relationship. At these high temperatures, the additional frictional heat in the bearing system has to be considered.

► Application temperatures, Page 67

iglide® H4	Application Temperature
Minimum	-40°F
Max. long-term	+392°F
Max. short-term	+464°F
Additional axial securing	+230°F

Temperature limits for iglide® H4



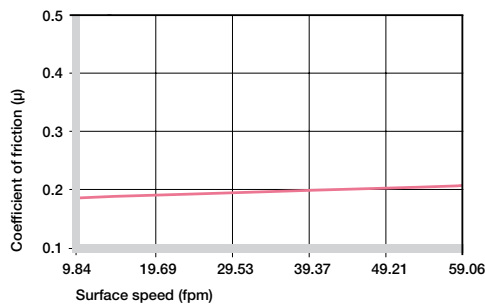
Recommended maximum permissible static surface pressure of iglide® H4 as a result of the temperature

Friction and Wear

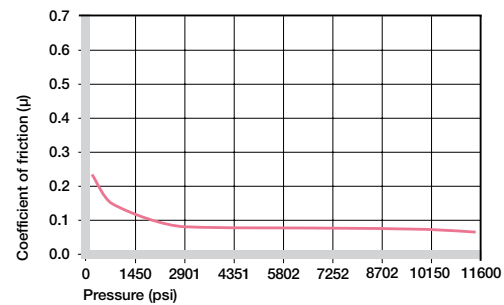
The coefficient of friction of iglide® H4 bearing is very low. However, it must be noted that an extremely coarse sliding surface can increase the friction.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® H4 as a function of the running speed; p = 108 psi



Coefficients of friction of iglide® H4 as a function of the running speed; p = 108 psi

iglide® H4	Coefficient of Friction
Dry	0.08 - 0.25
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® H4 against steel
(Shaft finish = 40 rms, 50 HRC)

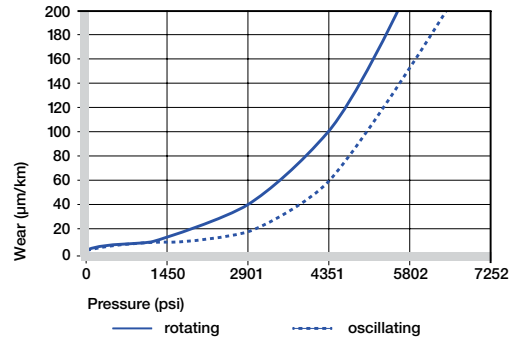
iglide® H4 - Technical Data

iglide®
H4

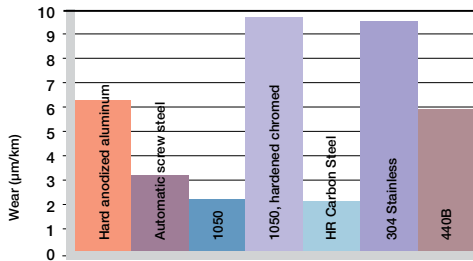
Shaft Materials

As well as being an economic bearing, iglide® H4 offers further savings when the shaft material is selected. Many alternatives are possible, although the correct shaft is also dependent on the type of application. There is no general rule to say if iglide® H4 is better with hard or soft shafts. However, it is true that oscillating applications produce better wear results than rotating applications. When used in rotation, the wear rate increases significantly from pressures of 1450 psi.

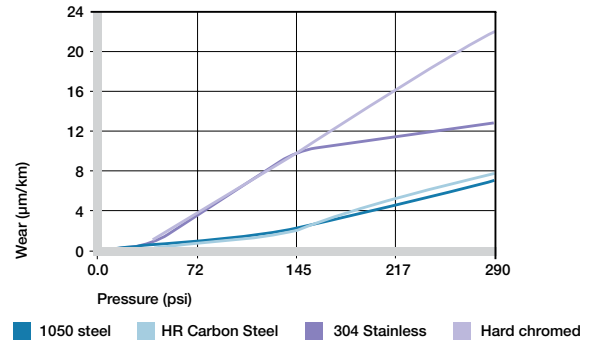
► Shaft Materials, Page 71



Wear for oscillating and rotating applications with shaft material 1050 hard chromed and ground steel, as a function of the pressure



Wear of iglide® H4, rotating applications with different shaft materials, p = 108 psi, v = 98 fpm

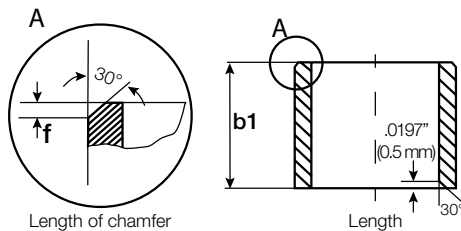


Wear of iglide® H4 with different shaft materials in rotational applications, as a function of the pressure

Installation Tolerances

iglide® H4 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings. Please contact an iglide® technical expert for support.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		
Length (inches)	Tolerance (h13) (inches)	Length of Chamfer (f) Based on d1
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		
Length (mm)	Tolerance (h13) (mm)	Length of Chamfer (f) Based on d1
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

iglide®
H4

iglide® H4 - Technical Data

Chemical Resistance

iglide® H4 plain bearings feature good chemical resistance. They are resistant to most lubricants. iglide® H4 is not affected by most light organic and inorganic acids. The moisture absorption of iglide® H4 plain bearings is below 0.1% in standard atmosphere. The saturation limit in water is 0.2%. iglide® H4 is therefore an ideal material for wet environments.

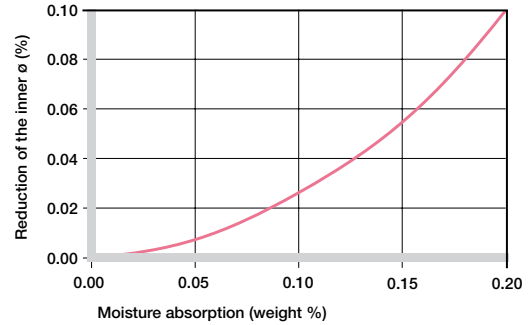
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	+
Strong acids	-
Weak alkaline	+
Strong alkaline	+

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® H4

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® H4 plain bearings

Radiation Resistance

iglide® H4 withstands neutron radiation as well as gamma radiation without noticeable losses of its excellent mechanical characteristics. iglide® H4 plain bearings are radiation resistant up to a radiation intensity of 2×10^2 Gy.

UV-Resistance

iglide® H4 plain bearings change under the influence of UV radiation and other climatic influences. The surface gets rougher, and the compressive strength decreases. The use of iglide® H4 in applications directly exposed to atmospheric conditions should therefore be tested.

Vacuum

In a vacuum environment, existing moisture will outgas. Due to the low moisture absorption of iglide® H4, this means that use in a vacuum is usually possible.

Electrical Properties

Unlike iglide® H and iglide® H370, iglide® H4 is electrically insulating

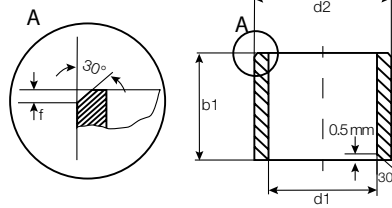
iglide® H4	
Specific volume resistance	> 10^{13} Ωcm
Surface resistance	> 10^{12} Ω

Electrical properties of iglide® H4

iglide® H4 - Product Range

Sleeve bearing - Metric

iglide®
H4



Order key

Type	Dimensions
H4 S M	-04 05-04
iglide® material	Form S (sleeve)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

For tolerance values
please refer to page 561

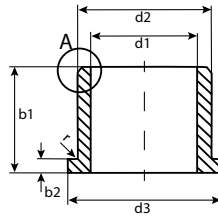
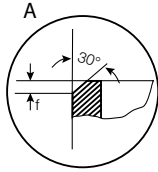
Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
H4SM-0405-04	4.0	5.5	4.0	4.010	4.058	5.500	5.512	3.970	4.000
H4SM-0608-08	6.0	8.0	8.0	6.010	6.058	8.000	8.015	5.970	6.000
H4SM-0810-10	8.0	10.0	10.0	8.013	8.071	10.000	10.015	7.964	8.000
H4SM-0810-20	8.0	10.0	20.0			10.000	10.015	7.964	8.000
H4SM-1618-20	16.0	18.0	20.0	16.016	16.086	18.000	18.018	15.957	16.000
H4SM-1820-15	18.0	20.0	15.0	18.016	18.086	20.000	20.021	17.957	18.000
H4SM-2022-15	20.0	22.0	15.0	20.020	20.104	23.000	23.021	19.948	20.000
H4SM-3943-40	39.0	43.0	40.0	39.025	39.125	43.000	43.025	38.938	39.000

iglide®
H4

iglide® H4 - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
H4	F M -04 05-04
iglide® material	
Form F (flange)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

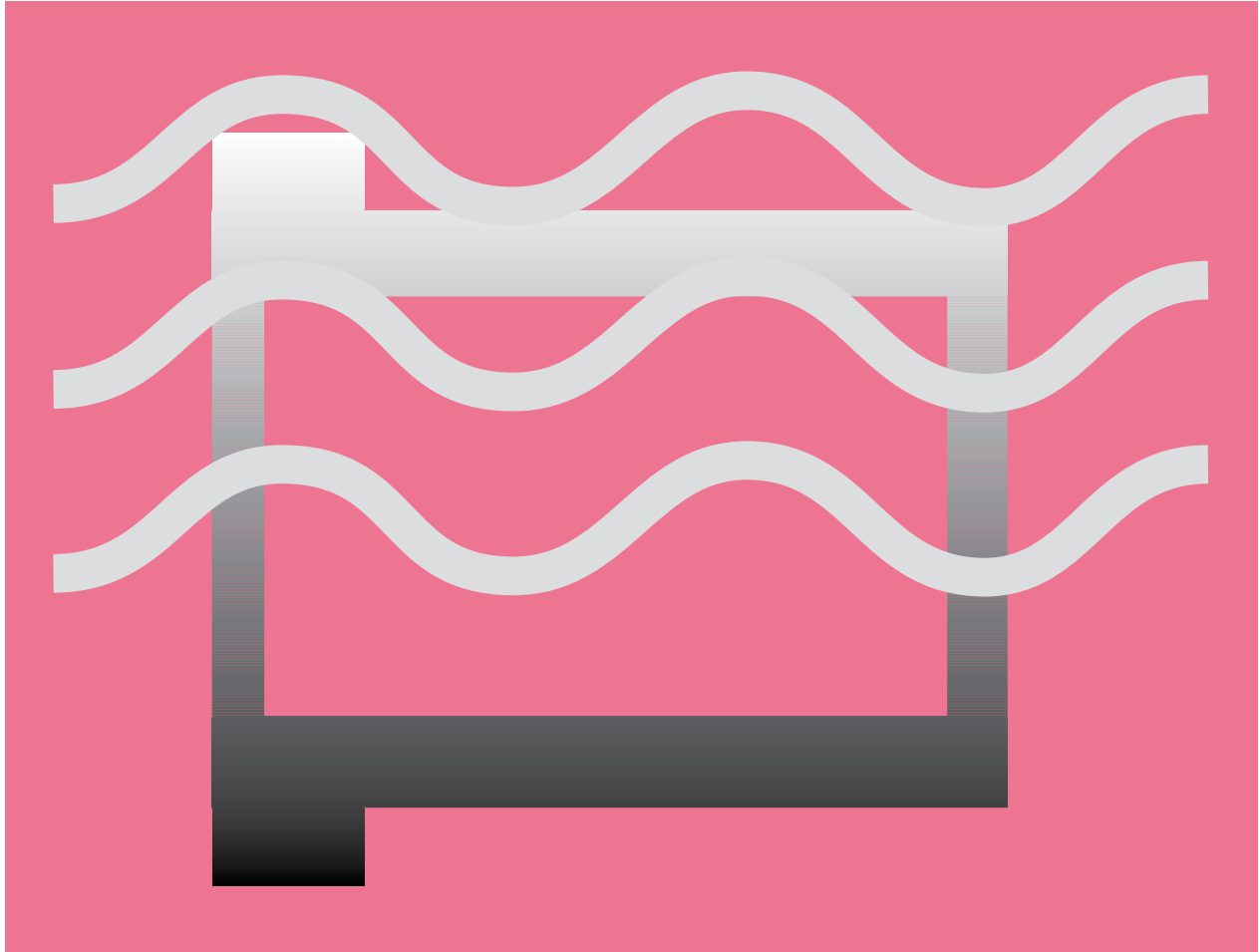
 $r = \max. 0.5$

 For tolerance values
please refer to page 561

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
H4FM-0405-04	4.0	5.5	9.5	4.0	0.75	4.010	4.058	5.500	5.512	3.970	4.000
H4FM-0608-08	6.0	8.0	12.0	8.0	1.0	6.010	6.058	8.000	8.015	5.970	6.000
H4FM-060810-20	6.0	10.0	12.0	20.0	1.0			8.000	8.015	5.970	6.000
H4FM-0810-10	8.0	10.0	15.0	9.0	1.0	8.013	8.071	10.000	10.015	7.964	8.000
H4FM-1012-05	10.0	12.0	18.0	5.0	1.0	10.013	10.071	12.000	12.018	9.964	10.000
H4FM-1012-12	10.0	12.0	18.0	12.0	1.0			12.000	12.018	9.964	10.000
H4FM-101218-25	10.0	12.0	18.0	25.0	1.0			12.000	12.018	9.964	10.000
H4FM-1214-12	12.0	14.0	20.0	12.0	1.0	12.016	12.086	14.000	14.018	11.957	12.000
H4FM-1517-12	15.0	17.0	23.0	12.0	1.0	15.016	15.086	17.000	17.018	14.957	15.000
H4FM-1618-17	16.0	18.0	24.0	17.0	1.0	16.016	16.086	18.000	18.018	15.957	16.000
H4FM-1820-17	18.0	20.0	26.0	17.0	1.0	18.016	18.086	18.000	18.018	17.957	18.000
H4FM-2023-21	20.0	23.0	30.0	21.0	1.5	20.020	20.104	23.000	23.021	19.948	20.000
H4FM-2528-21	25.0	28.0	35.0	21.0	1.5	25.020	25.104	28.000	28.021	24.948	25.000
H4FM-3034-30	30.0	34.0	42.0	30.0	2.0	30.020	30.104	34.000	34.025	29.948	30.000
H4FM-4044-40	40.0	44.0	52.0	40.0	2.0	40.025	40.125	44.000	44.025	39.938	40.000



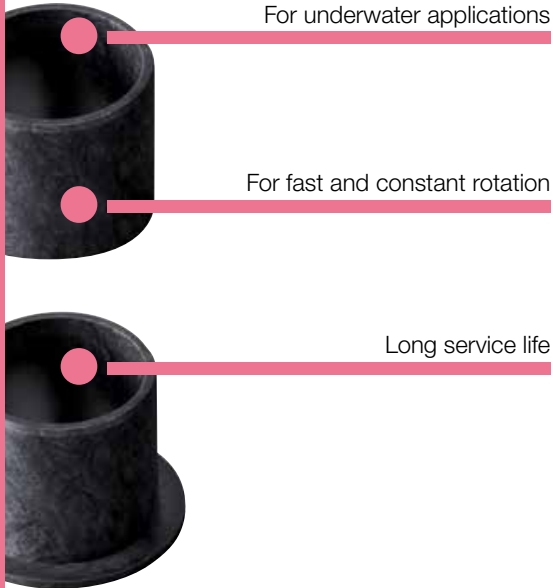
iglide® UW

- For underwater applications
- For fast and constant rotation
- Long service life

iglide®
UW

iglide® UW - The underwater endurance runner

For fast rotation under water



The best iglide® bearings for underwater applications. Extremely wear resistant under water, tested and maintenance-free. The first choice for pumping applications.



- For underwater applications and in liquid media
- For low loads
- For high speeds
- For extreme wear resistance in continuous operation underwater or in liquid media



- When temperatures are continuously higher than 194°F
 - iglide® UW500
- When high loads are present
 - iglide® H370
 - iglide® UW500
 - iglide® T500
- When only dry operation is feasible
 - iglide® J



Available from stock

Detailed information about delivery time online.



max. +194°F
min. -58°F



Price breaks online

No minimum order.



Ø 3 to 20 mm
more dimensions on request



Typical application areas

- Fluid technology
- Pumps etc.

iglide® UW - Technical Data

 iglide®
UW

Material Properties Table

General Properties	Unit	iglide® UW	Testing Method
Density	g/cm ³	1.52	
Color		black	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.2	DIN 53495
Max. moisture absorption	% weight	0.8	
Coefficient of friction, dynamic against steel	μ	0.15 - 0.35	
pv value, max. (dry)	psi x fpm	2,800	

Mechanical Properties			
Modulus of elasticity	psi	1,392,000	DIN 53457
Tensile strength at 68°F	psi	13,050	DIN 53452
Compressive strength	psi	10,150	
Permissible static surface pressure (68°F)	psi	5,802	
Shore D-hardness		78	DIN 53505

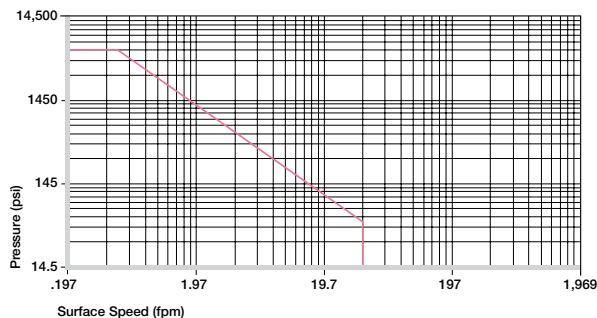
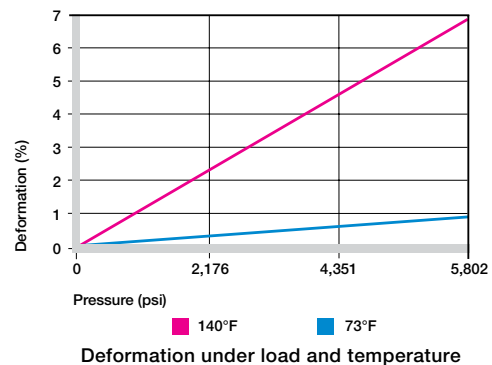
Physical and Thermal Properties			
Max. long-term application temperature	°F	194	
Max. application temperature, short-term	°F	230	
Min. application temperature	°F	-58	
Thermal conductivity	W/m x K	0.60	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	6	DIN 53752

Electrical Properties			
Specific volume resistance	Ωcm	< 10 ⁵	DIN IEC 93
Surface resistance	Ω	< 10 ⁵	DIN 53482

Compressive Strength

The graph shows the permissible bearing loads at the respective temperatures. It can be said that iglide® UW plain bearings are not very suitable for high loads. Normally in underwater applications there is no question of high loads being present. It is also important to note that the wear rate increases significantly from loads of 725 psi. The graph also shows the elastic deformation of iglide® UW as a function of the radial pressure. At the maximum recommended surface pressure of 5,802 psi, the deformation at room temperature is less than 1%.

► Compressive strength, Page 63



Permissible pv values for iglide® UW running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® UW shows good results when running dry as well as in fluids. When running underwater the bearing is lubricated hydro-dynamically, and surface speeds in excess of 393 fpm can be achieved. When running dry, short term surface speeds up to 295 fpm can be achieved.

► Surface speed, Page 64
 ► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	98	295
Oscillating	78	216
Linear	393	590

Maximum surface speeds

iglide®
UW

iglide® UW - Technical Data

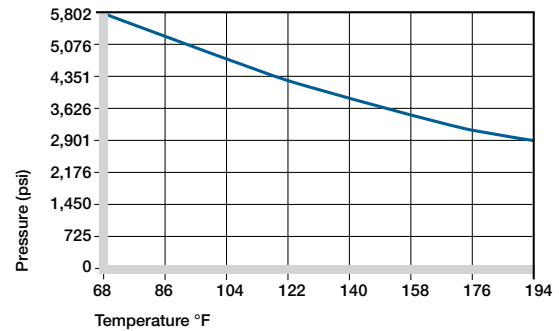
Temperatures

iglide® UW plain bearings are recommended for the low temperature range. The bearing temperature can be up to 194°F, although the frictional heat must also be considered, especially when running dry. In underwater applications, the fluid aids heat dissipation, so in this case the temperature of the fluid is of greater importance.

► Application temperatures, Page 67

iglide® UW	Application Temperature
Minimum	-58°F
Max. long-term	+194°F
Max. short-term	+230°F
Additional axial securing	+176°F

Temperature limits for iglide® UW



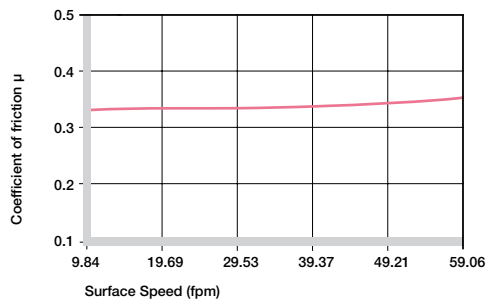
Recommended maximum permissible static surface pressure of iglide® UW as a result of the temperature

Friction and Wear

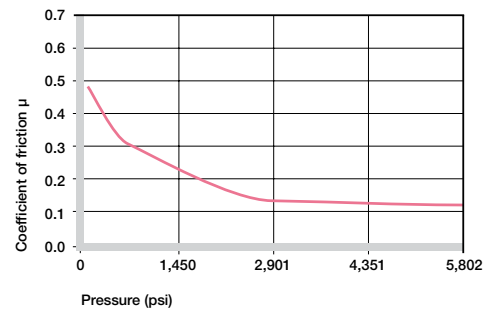
The surface of the shafts should not be extremely smooth in order to prevent a high adhesion effect and the related increase of the coefficient of friction. Please contact us for the specifications of shaft surface finishes in underwater applications.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® UW as a function of the running speed; p = 108 psi



Coefficients of friction of iglide® UW as a function of the load, v = 1.96 fpm

iglide® UW	Coefficient of Friction
Dry	0.15 - 0.35
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® UW against steel
(Shaft finish = 40 rms, 50 HRC)

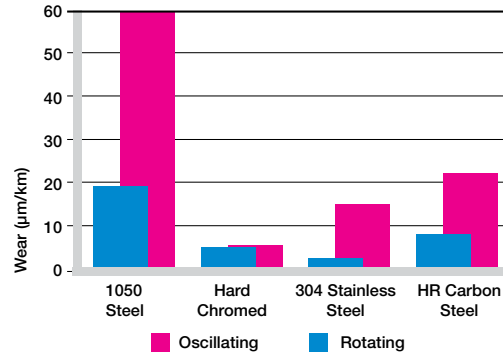
iglide® UW - Technical Data

iglide®
UW

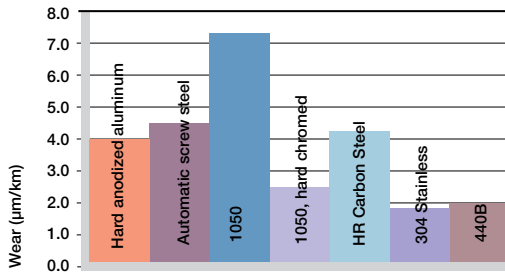
Shaft Materials

The effect of the type of shaft material used with iglide® UW plain bearings at low loads is small, as shown in the graph below. However, the graph to the right shows that the shaft material selection becomes more significant at higher loads. For more questions concerning a specific running surface, please contact an igus® technical sales associate.

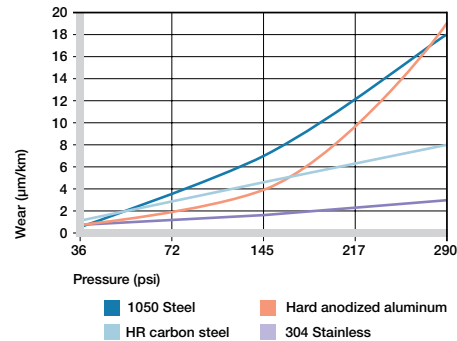
► Shaft Materials, Page 71



Wear for oscillating and rotating applications with shaft material 1050 hard chromed and ground steel, as a function of the pressure



Wear of iglide® UW, rotating applications with different shaft materials, p=108 psi, v=98 fpm

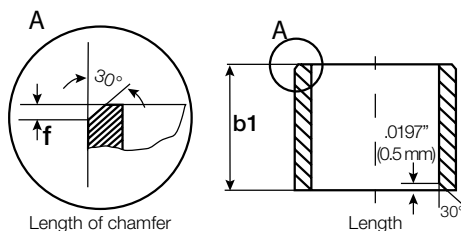


Wear of iglide® UW with different shaft materials in rotational applications, as a function of the pressure

Installation Tolerances

iglide® UW plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings. Please contact an iglide® technical expert for support.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	$f = .012 \rightarrow d_1 .040'' - .236''$
0.2362 to 0.3937	-0.0000 /-0.0087	$f = .019 \rightarrow d_1 > .236'' - .472''$
0.3937 to 0.7086	-0.0000 /-0.0106	$f = .031 \rightarrow d_1 > .472'' - 1.18''$
0.7086 to 1.1811	-0.0000 /-0.0130	$f = .047 \rightarrow d_1 > 1.18''$
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	$f = 0.3 \rightarrow d_1 1 - 6 \text{ mm}$
> 3 to 6	-0 /-180	$f = 0.5 \rightarrow d_1 > 6 - 12 \text{ mm}$
> 6 to 10	-0 /-220	$f = 0.8 \rightarrow d_1 > 12 - 30 \text{ mm}$
>10 to 18	-0 /-270	$f = 1.2 \rightarrow d_1 > 30 \text{ mm}$
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

Chemical Resistance

iglide® UW plain bearings are resistant to diluted alkaline and very weak acids, as well as to solvents and all types of lubricants. The moisture absorption of iglide® UW plain bearings is approximately 0.2% in standard atmosphere. The saturation in water is 0.8%. These values are so low that considering expansion by moisture absorption is only required under extreme conditions.

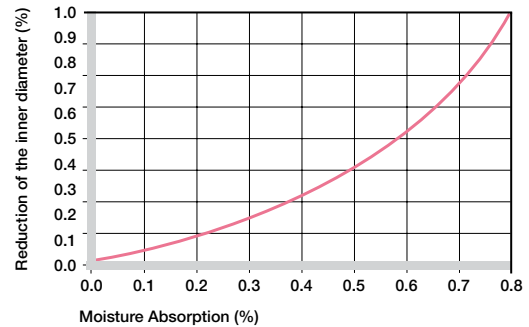
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to -
Strong acids	-
Weak alkaline	+
Strong alkaline	+ to 0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® UW

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® UW plain bearings

Radiation Resistance

iglide® UW plain bearings are radiation resistant to a radiation intensity of 3×10^2 Gy.

UV-Resistance

iglide® UW plain bearings are resistant to the impact of UV radiation

Vacuum

Applications in a vacuum are only possible to a limited extent. Only dehumidified bearings of iglide® UW should be tested in a vacuum.

Electrical Properties

iglide® UW plain bearings are conductive.

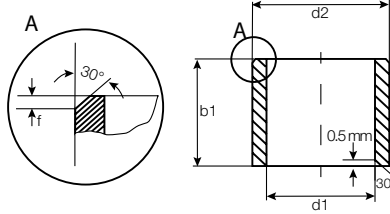
iglide® UW	
Specific volume resistance	< 10^5 Ωcm
Surface resistance	< 10^5 Ω

Electrical properties of iglide® UW

iglide® UW - Product Range

Sleeve bearing - Metric

iglide®
UW



Order key

Type	Dimensions
UW S M -04 05-04	
iglide® material	Form S (sleeve)
	Metric
	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

For tolerance values
please refer to page 569

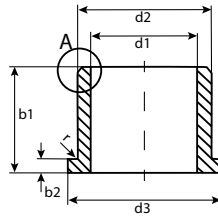
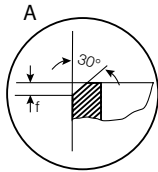
Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
UWSM-0304-05	3.0	4.5	5.0	3.014	3.054	4.500	4.512	2.975	3.000
UWSM-0405-06	4.0	5.5	6.0	4.020	4.068	5.500	5.512	3.970	4.000
UWSM-0507-08	5.0	7.0	8.0	5.020	5.068	7.000	7.015	4.970	5.000
UWSM-0608-08	6.0	8.0	8.0	6.020	6.068	8.000	8.015	5.970	6.000
UWSM-0810-10	8.0	10.0	10.0	8.025	8.083	10.000	10.015	7.964	8.000
UWSM-1012-10	10.0	12.0	10.0	10.025	10.083	12.000	12.018	9.964	10.000
UWSM-1214-12	12.0	14.0	12.0	12.032	12.102	14.000	14.018	11.957	12.000
UWSM-1618-12	16.0	18.0	12.0	16.032	16.102	18.000	18.018	15.957	16.000
UWSM-1820-15	18.0	20.0	15.0	18.032	18.102	20.000	20.021	17.957	18.000

iglide®
UW

iglide® UW - Product Range

Flange bearing - Metric


Order key

Type		Dimensions		
UW	F	M	-06	08-04
iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)
				Length b1 (mm)

 $r = \max. 0.5$

 For tolerance values
please refer to page 569

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
UWFM-0304-05	3.0	4.5	7.5	5.0	0.75	3.014	3.054	4.500	4.512	2.975	3.000
UWFM-0405-06	4.0	5.5	9.5	6.0	0.75	4.020	4.068	5.500	5.512	3.970	4.000
UWFM-0507-05	5.0	7.0	11.0	5.0	1.0	5.020	5.068	7.000	7.015	4.970	5.000
UWFM-0608-06	6.0	8.0	12.0	6.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
UWFM-0810-10	8.0	10.0	15.0	10.0	1.0	8.025	8.083	10.000	10.015	7.964	8.000
UWFM-1012.10	10.0	12.0	18.0	10.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
UWFM-1214-12	12.0	14.0	20.0	12.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
UWFM-1618-17	16.0	18.0	24.0	17.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
UWFM-2023-21	20.0	23.0	30.0	21.5	1.5	20.040	20.124	23.000	23.021	19.948	20.000



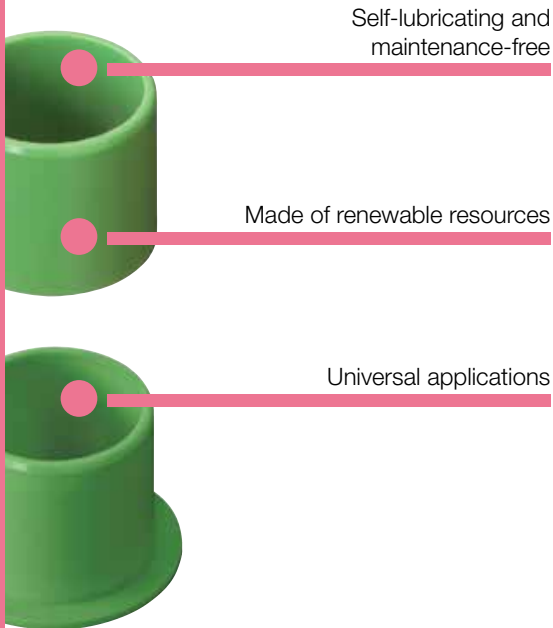
iglide[®] N54

- Made of 54% renewable resources
- Universally applicable
- Self-lubricating and maintenance-free

iglide®
N54

iglide® N54 - The biopolymer

Based on renewable resources



Self-lubricating and
maintenance-free

Made of renewable resources

Universal applications

Made of 54% renewable resources. The most environmentally friendly of all iglide bearings.



- For applications with infrequent movements and low to medium loads
- If environmental concerns are present



- If a universal standard stock part is requested
 - iglide® G300
- If high motion frequency and continuous movement are present
 - iglide® J
- If there are increased temperatures
 - iglide® J350



Available from stock

Detailed information about delivery time online.



max. +176°F
min. -40°F



Price breaks online

No minimum order.



Ø 6 to 20 mm
more dimensions on request



Typical application areas

- Consumer products
- Furniture industry
- General mechanical engineering
- Industrial design

iglide® N54 - Technical Data

 iglide®
N54

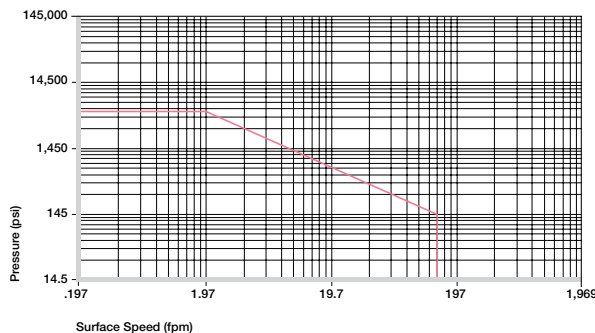
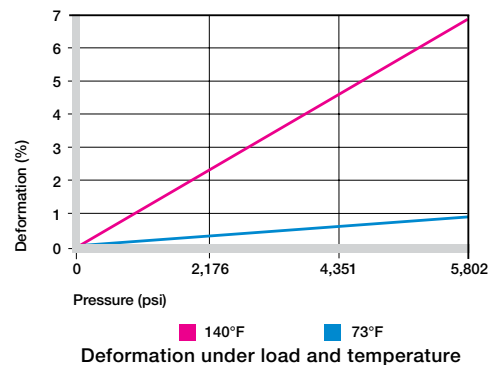
Material Properties Table

General Properties	Unit	iglide® N54	Testing Method
Density	g/cm ³	1.13	
Color		green	
Max. moisture absorption at 73°F / 50% r.h.	% weight	1.6	DIN 53495
Max. moisture absorption	% weight	3.6	
Coefficient of friction, dynamic against steel	μ	0.15 - 0.23	
pv value, max. (dry)	psi x fpm	14,000	
Mechanical Properties			
Modulus of elasticity	psi	261,000	DIN 53457
Tensile strength at 68°F	psi	10,150	DIN 53452
Compressive strength	psi	4,351	
Permissible static surface pressure (68°F)	psi	8,700	
Shore D-hardness		74	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	176	
Max. application temperature, short-term	°F	248	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	9	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹³	DIN IEC 93
Surface resistance	Ω	> 10 ¹¹	DIN 53482

Compressive Strength

The compressive strength of iglide® N54 bearings decreases with increasing temperatures. The graph clarifies this relationship. At the long-term permitted application temperature of 176°F, the permitted surface pressure is less than 1,450 psi. The graph shows the elastic deformation of iglide® N54 at radial loads.

► Compressive strength, Page 63



Permissible pv values for iglide® N54 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

Even if the typical applications for iglide® N54 plain bearings are more commonly for intermittent service, depending on the type of motion, the maximum attainable speeds can be quite high. The speeds stated in the table are limit values for the lowest bearing loads. As loads increase, the admissible speed is reduced with higher loads due to the limitations of the pv value.

► Surface speed, Page 64
 ► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	157	295
Oscillating	118	216
Linear	197	393

Maximum surface speeds

iglide® N54 - Technical Data

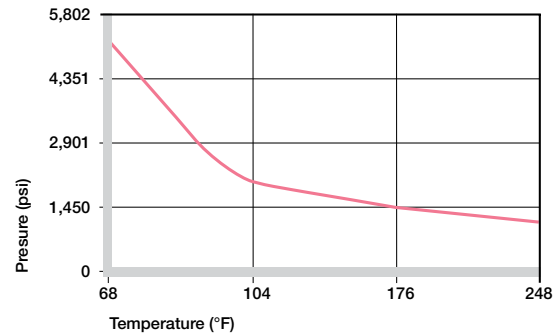
Temperatures

The short-term admissible temperature limit is +248°F, thus permitting the use of iglide® N54 plain bearings in all applications with elevated ambient temperatures. However, the compressive strength of iglide® N54 bearings decreases as temperatures increase. The additional frictional heat in the bearing system should be taken into account when considering the temperature limits.

► Application temperatures, Page 67

iglide® N54	Application Temperature
Minimum	-40°F
Max. long-term	+176°F
Max. short-term	+248°F
Additional axial securing	+122°F

Temperature limits for iglide® N54



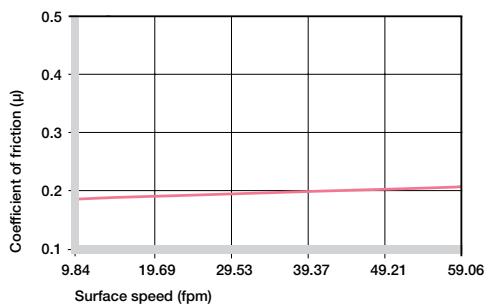
Recommended maximum permissible static surface pressure of iglide® N54 as a result of the temperature

Friction and Wear

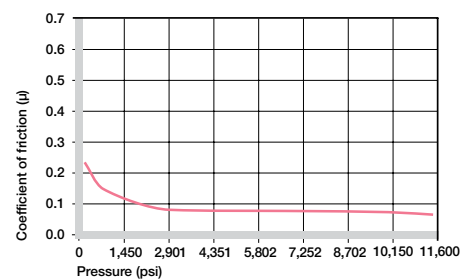
iglide® N54 has a low coefficient of friction. However it must be noted that a sliding surface with a rough surface finish increases the friction. We recommend shaft surface finishes of 4 to 16 rms. The coefficient of friction of iglide® N54 bearings is only marginally dependent on the surface speed. The influence of the load is greater; an increase in load lowers the coefficient of friction up to 0.08.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® N54 as a function of the running speed; p = 145 psi



Coefficients of friction of iglide® N54 as a function of the load, v = 1.96 fpm

iglide® N54	Coefficient of Friction
Dry	0.15 - 0.23
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® N54 against steel
(Shaft finish = 40 rms, 50 HRC)

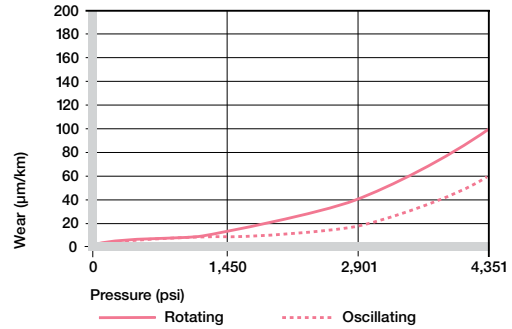
iglide® N54 - Technical Data

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N54

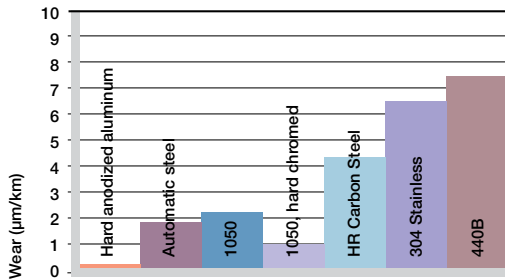
Shaft Materials

It is important to select a suitable shaft material. As a rule, iglide® N54 is better suited for hard or soft shafts, but hard shaft surfaces tend to have better holding times. Starting at loads 145 psi, wear increases measurably and continuously.

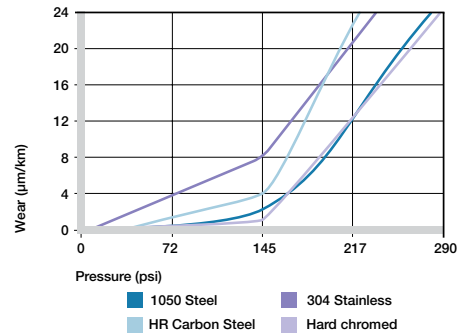
► Shaft Materials, Page 71



Wear for oscillating and rotating applications with shaft material 1050 hard chromed and ground steel, as a function of the pressure



Wear of iglide® N54, rotating applications with different shaft materials, p = 145 psi, v = 59 fpm

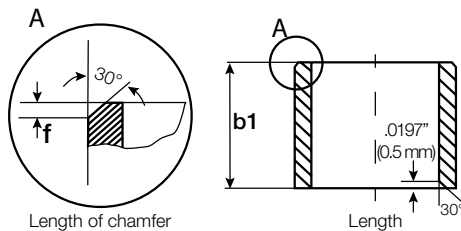


Wear of iglide® N54 with different shaft materials in rotational applications, as a function of the pressure

Installation Tolerances

iglide® N54 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings. Please contact an iglide® technical expert for support.

- Tolerance table, Page 75
- Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		
Length (inches)	Tolerance (h13) (inches)	Length of Chamfer (f) Based on d1
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		
Length (mm)	Tolerance (h13) (mm)	Length of Chamfer (f) Based on d1
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

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N54

iglide® N54 - Technical Data

Chemical Resistance

iglide® N54 plain bearings have good resistance to chemicals. They are resistant to most lubricants. iglide® N54 is not impaired by most weak organic and inorganic acids and bases.

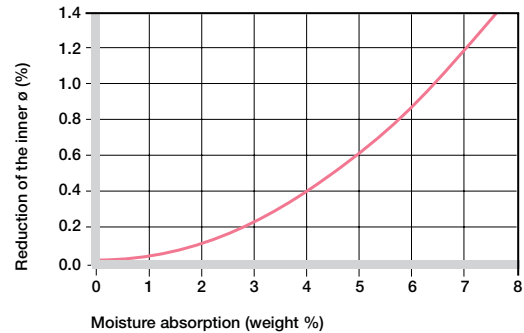
► Chemical table, Page 1364

Medium	Resistance
Alcohol	+ to 0
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to +
Strong acids	-
Weak alkaline	+
Strong alkaline	0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® N54

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364



Effect of moisture absorption on iglide® N54 plain bearings

Radiation Resistance

iglide® N54 plain bearings can be used with restrictions when exposed to radiation. iglide® N54 plain bearings are radiation resistant to a radiation intensity of 1×10^4 Gy.

UV-Resistance

iglide® N54 plain bearings are resistant to the impact of UV radiation.

Vacuum

Any absorbed water will be emitted as gas in a vacuum. Applications under vacuum conditions are possible with restrictions.

Electrical Properties

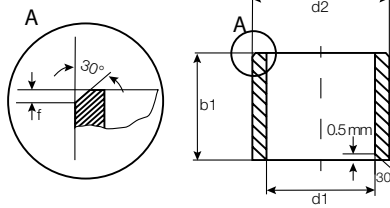
iglide® N54 plain bearings are electrically insulating.

iglide® N54	
Specific volume resistance	> 10^{13} Ω cm
Surface resistance	> 10^{11} Ω

Electrical properties of iglide® N54

iglide® N54 - Product Range

Sleeve bearing - Metric

 iglide®
N54

Order key

Type		Dimensions		
N54	S	M	-04	05-04
iglide® material	Form S (sleeve)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)
				Length b1 (mm)

 For tolerance values
please refer to page 577

Dimensions according to ISO 3547-1 and special dimensions

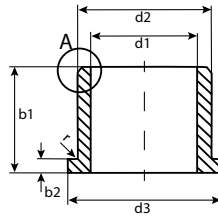
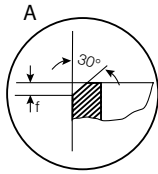
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
N54SM-0608-06	6.0	8.0	6.0	6.020	6.068	8.000	8.015	5.970	6.000
N54SM-0810-10	8.0	10.0	10.0	8.025	8.083	10.000	10.015	7.964	8.000
N54SM-1012-10	10.0	12.0	10.0	10.025	10.083	12.000	12.018	9.964	10.000
N54SM-1214-12	12.0	14.0	12.0	12.032	12.102	14.000	14.018	11.957	12.000
N54SM-1618-15	16.0	18.0	15.0	16.032	16.102	18.000	18.018	15.957	16.000
N54SM-2023-20	20.0	23.0	20.0	20.040	20.124	23.000	23.021	19.948	20.000

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iglide® N54 - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
------	------------

N54 F M -06 08-04

iglide® material	Form F (flange)	Metric	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Length b1 (mm)
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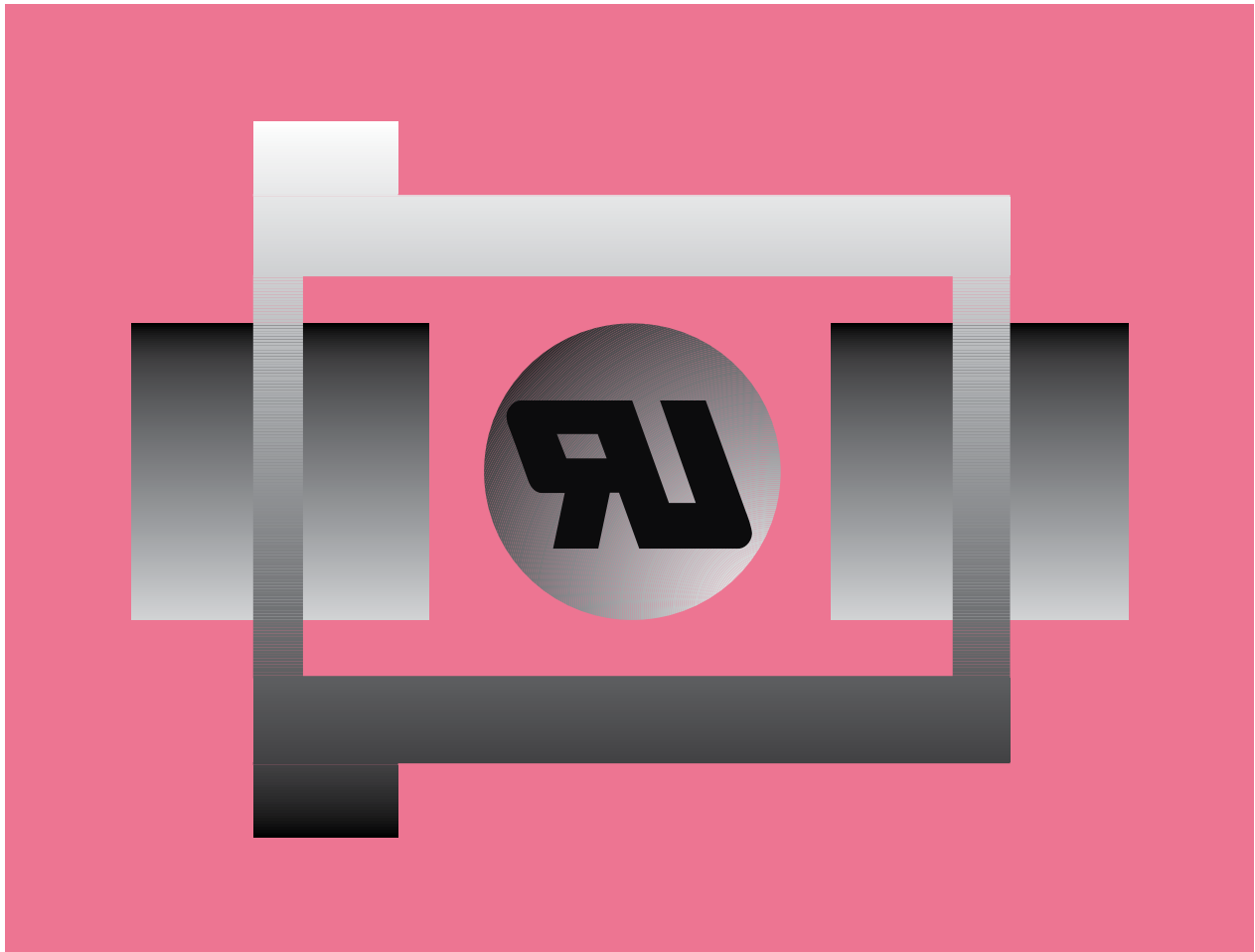
 $r = \max. 0.5$

 For tolerance values
please refer to page 577

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
N54FM-0608-06	6.0	8.0	12.0	6.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
N54FM-0810-10	8.0	10.0	15.0	10.0	1.0	8.025	8.083	10.000	10.015	7.964	8.000
N54FM-1012-10	10.0	12.0	18.0	10.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
N54FM-1214-12	12.0	14.0	20.0	12.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
N54FM-1618-17	16.0	18.0	24.0	17.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
N54FM-2023-21	20.0	23.0	30.0	21.5	1.5	20.040	20.124	23.000	23.021	19.948	20.000



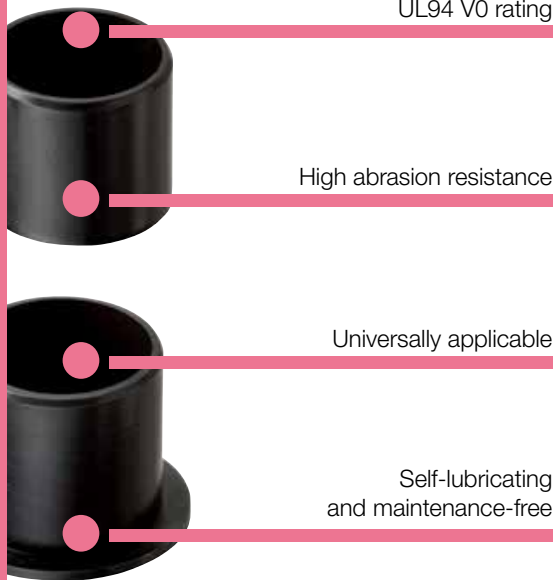
iglide® G V0

- UL94 V0 rating
- High abrasion resistance
- Universally applicable

iglide®
G V0

iglide® G V0 - V0 rating according to UL94

Versatile and cost effective



The material achieves the UL94 V0 rating and is therefore ideally suited for applications with stringent fire protection regulations (vehicle and aircraft interiors, building interior systems, etc.). Other properties are similar to the general purpose iglide® G300 material.



- When low moisture absorption and good chemical resistance is required for primarily static load
- When a low-priced bearing is required for use in a wet environment with low pv values
- When there is a basic lubrication of the bearing



- When you need a UL94 V0 classified bearing for high-temperature applications
 - iglide® T500
- When you need a standard bearing without having to meet special fire codes
 - iglide® G300



Available from stock

Detailed information about delivery time online.



max. +266°F
min. -40°F



Price breaks online

No minimum order.



Ø 6 to 40 mm
more dimensions on request



Typical application areas

- Passenger seats
- Escalators
- Elevators
- Hinges
- Switch cabinets

iglide® G V0 - Technical Data

 iglide®
G V0

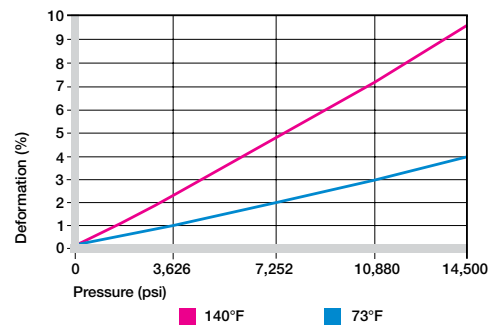
Material Properties Table

General Properties	Unit	iglide® G V0	Testing Method
Density	g/cm ³	1.53	
Color		black	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.7	DIN 53495
Max. moisture absorption	% weight	4.0	
Coefficient of friction, dynamic against steel	μ	0.07 - 0.20	
pv value, max. (dry)	psi x fpm	14,000	
Mechanical Properties			
Modulus of elasticity	psi	1,146,000	DIN 53457
Tensile strength at 68°F	psi	20,310	DIN 53452
Compressive strength	psi	14,500	
Permissible static surface pressure (68°F)	psi	10,880	
Shore D-hardness		80	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	266	
Max. application temperature, short-term	°F	410	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.25	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	9	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹²	DIN IEC 93
Surface resistance	Ω	> 10 ¹¹	DIN 53482

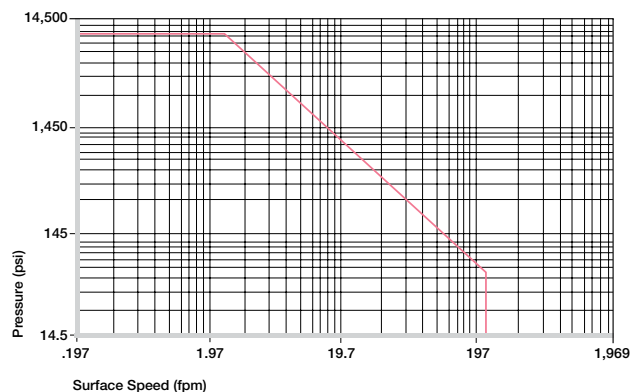
Compressive Strength

With increasing temperatures, the compressive strength of iglide® G V0 plain bearings decreases. However, at the longterm maximum temperature of +266°F the permissible surface pressure is still around 5,076 psi. The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® G V0 running dry
against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® G V0 has been developed for low to medium surface speeds. The maximum values shown in the table can only be achieved at low pressures. In practice, though, this temperature level is rarely reached due to varying application conditions.

- Surface speed, Page 64
- pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	197	393
Oscillating	137	275
Linear	787	984

Maximum surface speeds

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iglide® G V0 - Technical Data

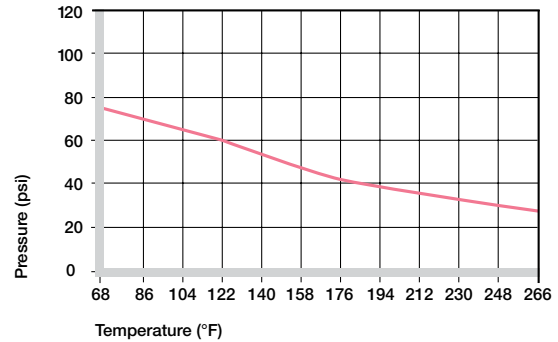
Temperatures

The ambient temperatures greatly influence the wear performance of plastic bearings. The short term maximum temperature is +410°F, this allows the use of iglide® G V0 plain bearings in heat treating applications in which the bearings are not subjected to additional loading. The ambient application temperature has a direct impact on bearing wear, an increase in temperature results in an increase in wear. With increasing temperatures, the wear increases and this effect is significant when temperatures rise over +248°F. At temperatures over +212°F an additional securing is required.

► Application temperatures, Page 67

iglide® G V0	Application Temperature
Minimum	-40°F
Max. long-term	+266°F
Max. short-term	+410°F
Additional axial securing	+212°F

Temperature limits for iglide® G V0



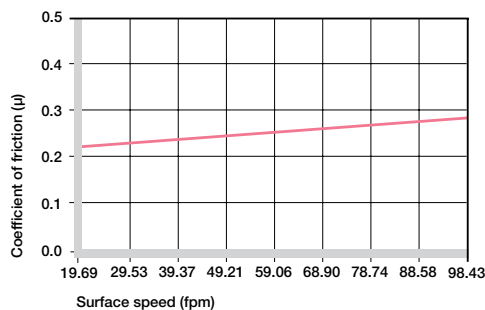
Recommended maximum permissible static surface pressure of iglide® G V0 as a result of the temperature

Friction and Wear

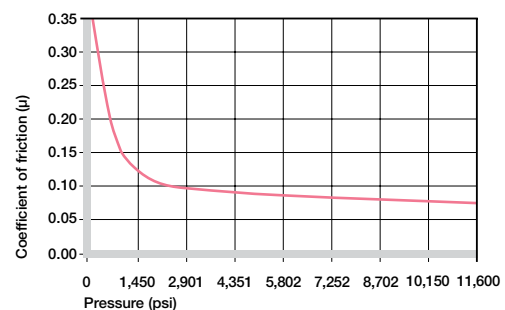
Similar to wear resistance, the coefficient of friction μ also changes with the load. The coefficient of friction decreases considerably with increasing pressures, whereas a slight increase in surface speed causes an increase of the coefficient of friction. This relationship explains the excellent results of iglide® G V0 plain bearings for high loads and low speeds.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficients of friction of iglide® G V0 as a function of the running speed; p = 108 psi



Coefficients of friction of iglide® G V0 as a function of the running speed; p = 108 psi

iglide® G V0	Coefficient of Friction
Dry	0.07 - 0.20
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction of iglide® G V0 against steel
(Shaft finish = 40 rms, 50 HRC)

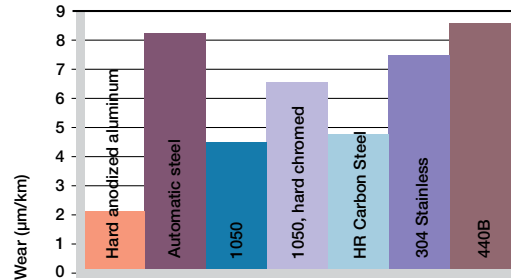
iglide® G V0 - Technical Data

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G V0

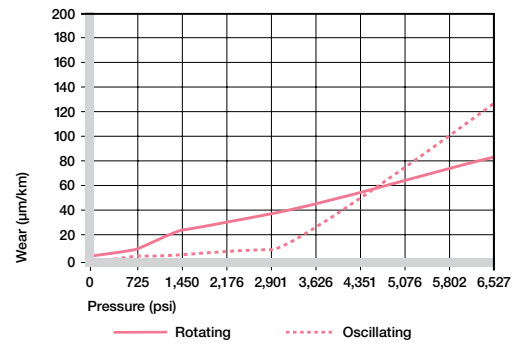
Shaft Materials

The friction and wear are also dependent to a large degree on the shaft material. Shafts that are too smooth, increase both the coefficient of friction and the wear of the bearing. For iglide® G V0 a ground surface with an average roughness between 0.6 and 0.8 μm is recommended. The graph shows results of testing different shaft materials with plain bearings made from iglide® G V0. It is important to notice that with increasing loads, the recommended hardness of the shaft increases. The "soft" shafts tend to wear more easily and thus affect the clearance of the overall system. If the loads exceed 290 psi it is important to recognize that the wear rate (the gradient of the curves) clearly decreases with the hard shaft materials. The comparison of rotational movements to oscillating movements shows that iglide® G V0 provides advantages in oscillating movements at loads up to 4,351 psi. If the shaft material you plan to use is not contained in this list, please contact us.

► Shaft Materials, Page 71



Wear of iglide® G V0, rotating applications with different shaft materials, $p = 108 \text{ psi}$, $v = 98 \text{ fpm}$

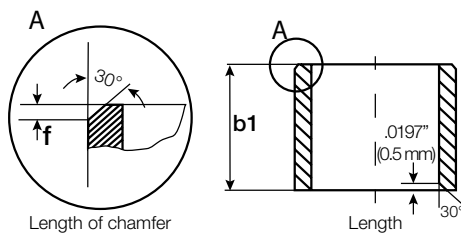


Wear for oscillating and rotating applications with shaft material 1050 hard chromed and ground steel, as a function of the pressure

Installation Tolerances

iglide® G V0 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings. Please contact an iglide® technical expert for support.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 / -0.0071	$f = .012 \rightarrow d_1 .040'' - .236''$
0.2362 to 0.3937	-0.0000 / -0.0087	$f = .019 \rightarrow d_1 > .236'' - .472''$
0.3937 to 0.7086	-0.0000 / -0.0106	$f = .031 \rightarrow d_1 > .472'' - 1.18''$
0.7086 to 1.1811	-0.0000 / -0.0130	$f = .047 \rightarrow d_1 > 1.18''$
1.1811 to 1.9685	-0.0000 / -0.0154	
1.9685 to 3.1496	-0.0000 / -0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 / -140	$f = 0.3 \rightarrow d_1 1 - 6 \text{ mm}$
> 3 to 6	-0 / -180	$f = 0.5 \rightarrow d_1 > 6 - 12 \text{ mm}$
> 6 to 10	-0 / -220	$f = 0.8 \rightarrow d_1 > 12 - 30 \text{ mm}$
> 10 to 18	-0 / -270	$f = 1.2 \rightarrow d_1 > 30 \text{ mm}$
> 18 to 30	-0 / -330	
> 30 to 50	-0 / -390	
> 50 to 80	-0 / -460	

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G V0

iglide® G V0 - Technical Data

Chemical Resistance

iglide® G V0 plain bearings have strong resistance to chemicals. They are also resistant to most lubricants. iglide® G V0 plain bearings are not attacked by most weak organic or inorganic acids.

► Chemical table, Page 1364

Medium	Resistance
Alcohol	+ to 0
Hydrocarbon	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to -
Strong acids	-
Weak alkaline	+
Strong alkaline	0

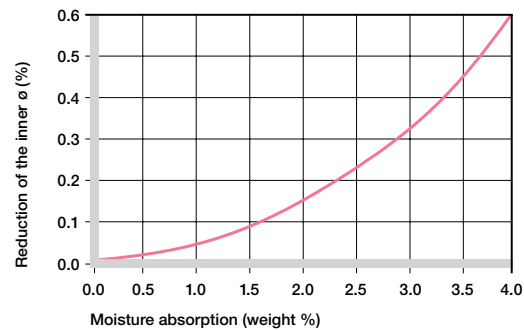
+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® G V0

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364

Moisture absorption

The moisture absorption of iglide® G V0 plain bearings is approximately 0.7 % in ambient conditions. The saturation limit submerged in water is 4 %. This must be taken into account along with other environmental influences.



Effect of moisture absorption on iglide® G V0 plain bearings

Radiation Resistance

Plain bearings made from iglide® G V0 are resistant to radiation up to an intensity of $3 \cdot 10^2$ Gy.

UV-Resistance

iglide® G V0 plain bearings are permanently resistant to UV radiation.

Vacuum

iglide® G V0 plain bearings outgas in a vacuum. Use in vacuum is only possible with dehumidified bearings.

Electrical Properties

iglide® G V0 plain bearings are electrically insulating.

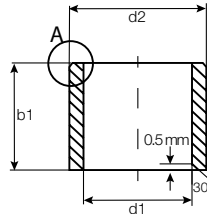
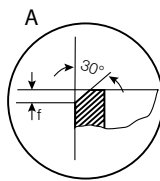
iglide® G V0	
Specific volume resistance	> 10^{12} Ωcm
Surface resistance	> 10^{11} Ω

Electrical properties of iglide® G V0

iglide® G V0 - Product Range

Sleeve bearing - Metric

iglide®
G V0



Order key

Type	Dimensions
G V0 S M -04 05-04	
iglide® material	
Form S (sleeve)	
Metric	
Inner-Ø d1 (mm)	
Outer-Ø d2 (mm)	
Length b1 (mm)	

For tolerance values
please refer to page 585

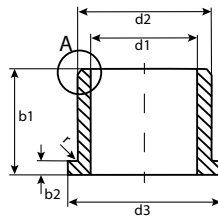
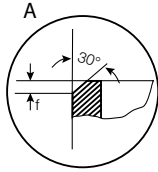
Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
GV0SM-0608-06	6.0	8.0	6.0	6.020	6.058	8.000	8.015	5.970	6.000
GV0SM-0810-10	8.0	10.0	10.0	8.025	8.083	10.000	10.015	7.964	8.000
GV0SM-1012-10	10.0	12.0	10.0	10.025	10.083	12.000	12.018	9.964	10.000
GV0SM-1214-12	12.0	14.0	12.0	12.032	12.102	14.000	14.018	11.957	12.000
GV0SM-1618-15	16.0	18.0	15.0	16.032	16.102	18.000	18.018	15.957	16.000
GV0SM-2023-20	20.0	23.0	20.0	20.040	20.124	23.000	23.021	19.948	20.000
GV0SM-2528-20	25.0	28.0	20.0	25.040	25.124	28.000	28.021	24.948	25.000
GV0SM-3034-30	30.0	34.0	30.0	30.040	30.124	34.000	34.025	29.938	30.000
GV0SM-3539-40	35.0	39.0	40.0	35.050	35.150	39.000	39.025	34.938	35.000
GV0SM-4044-40	40.0	44.0	40.0	40.050	40.150	44.000	44.025	39.938	40.000

iglide®
G V0

iglide® G V0 - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
G V0 F M	-04 05-04
iglide® material	Form F (flange)
	Metric
	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

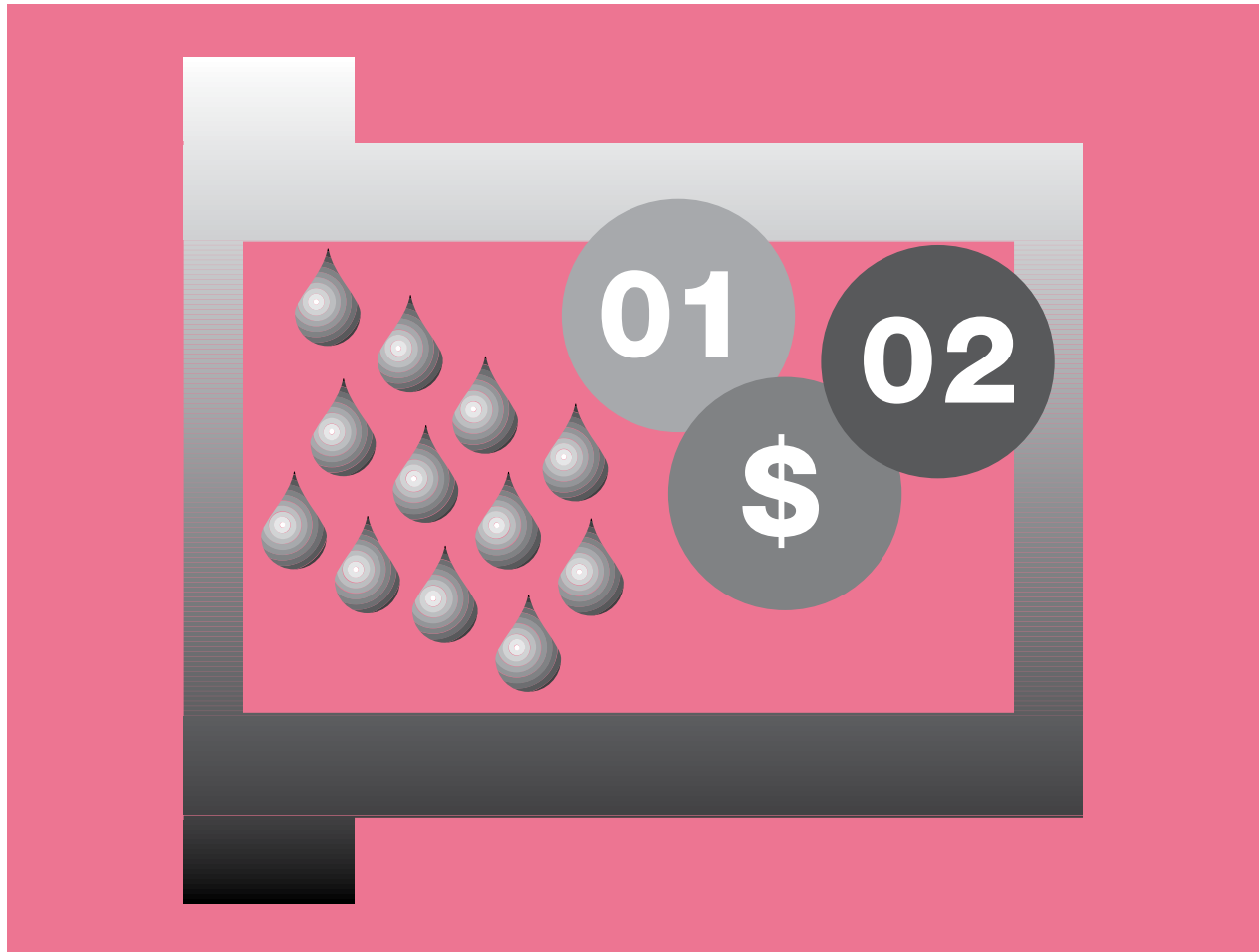
 $r = \max. 0.5$

 For tolerance values
please refer to page 585

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
GV0FM-0608-06	6.0	8.0	12.0	6.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
GV0FM-0810-10	8.0	10.0	15.0	10.0	1.0	8.025	8.083	10.000	10.015	7.964	8.000
GV0FM-1012-10	10.0	12.0	18.0	10.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
GV0FM-1214-12	12.0	14.0	20.0	12.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
GV0FM-1618-17	16.0	18.0	24.0	17.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
GV0FM-2023-21	20.0	23.0	30.0	21.0	1.5	20.040	20.124	23.000	23.021	19.948	20.000
GV0FM-2528-21	25.0	28.0	35.0	21.0	1.5	25.040	25.124	28.000	28.021	24.948	25.000
GV0FM-3034-37	30.0	34.0	42.0	37.0	2.0	30.040	30.124	34.000	34.025	29.948	30.000
GV0FM-3539-36	35.0	39.0	47.0	36.0	2.0	35.050	35.150	39.000	39.025	34.938	35.000
GV0FM-4044-40	40.0	44.0	52.0	40.0	2.0	40.050	40.150	44.000	44.025	39.938	40.000



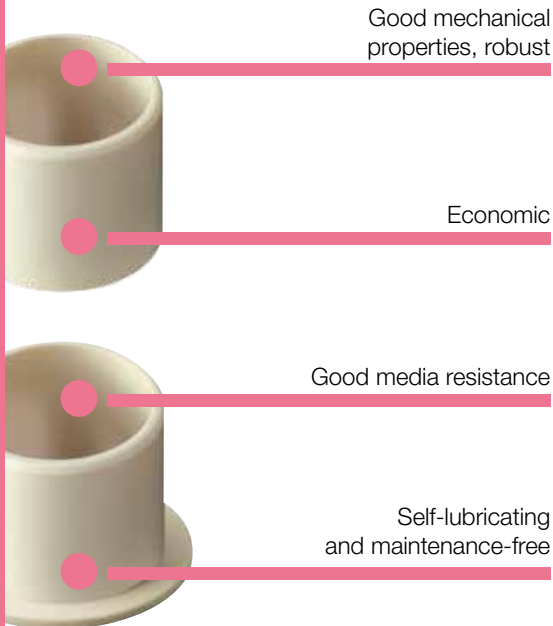
iglide® J2

- Good mechanical properties, robust
- Economic
- Good media resistance

iglide®
J2

iglide® J2 - Versatile and cost-effective

Environmentally friendly



iglide® J2 has good universal media resistance, comparable to that of iglide® J and similar materials. The mechanical specifications in sporadically moved applications are better although, in comparison, clear compromises have to be made with regard to friction and wear. Like all iglide® materials, iglide® J2 is PFOA-free.



- When low moisture absorption and good chemical resistance is required for primarily static load
- When a low-priced bearing is required for use in a wet environment with low pv values
- When there is a basic lubrication of the bearing



- When a highly wear-resistant bearing is required for continuous operation in dry running
 - iglide® J3
- When low moisture absorption and media resistance play a minor role
 - iglide® M250
- When a resistance to high temperatures and chemicals is required
 - iglide® T500



Available from stock

Detailed information about delivery time online.



max. +194°F
min. -58°F



Price breaks online

No minimum order.



Ø 6 to 25 mm
more dimensions on request



Typical application areas

- Jig construction
- Material handling

iglide® J2 - Technical Data

 iglide®
J2

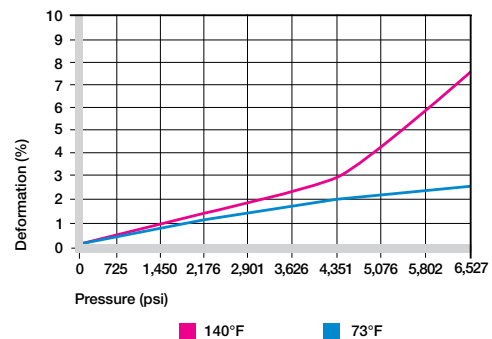
Material Properties Table

General Properties	Unit	iglide® J2	Testing Method
Density	g/cm ³	1.44	
Color		light yellow	
Max. moisture absorption at 73°F / 50% r.h.	% weight	0.2	DIN 53495
Max. moisture absorption	% weight	1.3	
Coefficient of friction, dynamic against steel	μ	0.11 - 0.27	
pv value, max. (dry)	psi x fpm	6,600	
Mechanical Properties			
Modulus of elasticity	psi	522,900	DIN 53457
Tensile strength at 68°F	psi	14,650	DIN 53452
Compressive strength	psi	11,170	
Permissible static surface pressure (68°F)	psi	6,672	
Shore D-hardness		ND	DIN 53505
Physical and Thermal Properties			
Max. long-term application temperature	°F	194	
Max. application temperature, short-term	°F	230	
Min. application temperature	°F	-58	
Thermal conductivity	W/m x K	0.25	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	7	DIN 53752
Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹³	DIN IEC 93
Surface resistance	Ω	> 10 ¹²	DIN 53482

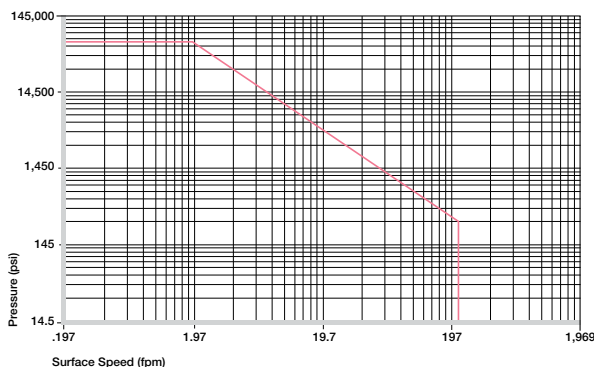
Compressive Strength

With increasing temperatures, the compressive strength of iglide® J2 plain bearings decreases. The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this. The graph to the right shows the elastic deformation of iglide® J2 under different loads. A possible deformation could be, among others, dependant on the duty cycle of the load.

► Compressive strength, Page 63



Deformation under load and temperature



Permissible pv values for iglide® J2 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

iglide® J2 is mainly suitable for low speeds in dry running, but the specified values shown in the table can only be achieved at low pressures. At the given speeds, friction can cause a temperature increase to maximum permissible levels. In practice, though, this temperature level is rarely reached due to varying application conditions.

- Surface speed, Page 64
- pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	157	374
Oscillating	137	216
Linear	590	984

Maximum surface speeds

iglide® J2 - Technical Data

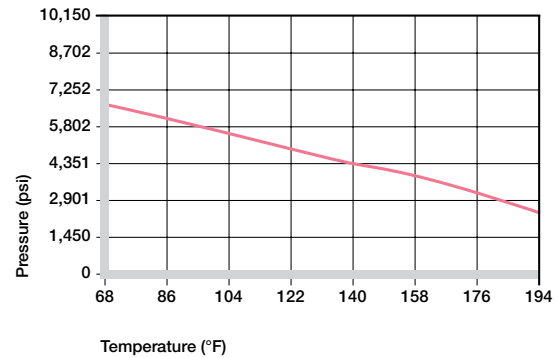
Temperatures

The ambient application temperature has a direct impact on bearing wear, an increase in temperature results in an increase in wear. With increasing temperatures, the wear increases and this effect is significant when temperatures rise over +194°C. At temperatures over +140°C an additional securing is required.

► Application temperatures, Page 67

iglide® J2	Application Temperature
Minimum	-58°F
Max. long-term	+194°F
Max. short-term	+230°F
Additional axial securing	+140°F

Temperature limits for iglide® J2

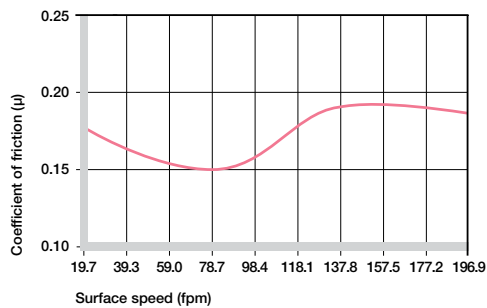


Recommended maximum permissible static surface pressure of iglide® J2 as a result of the temperature

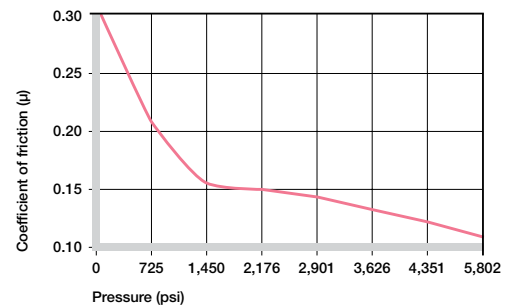
Friction and Wear

Coefficient of friction and wear resistance alter with the application parameters (See charts below).

- Coefficients of friction and surfaces, Page 68
- Wear resistance, Page 69



Coefficients of friction of iglide® J2 as a function of the running speed; p = 108 psi



Coefficients of friction of iglide® J2 as a function of the running speed; p = 108 psi

iglide® J2	Coefficient of Friction
Dry	0.11 - 0.27
Grease	0.08
Oil	0.07
Water	0.04

Coefficient of friction of iglide® J2 against steel (Shaft finish = 40 rms, 50 HRC)

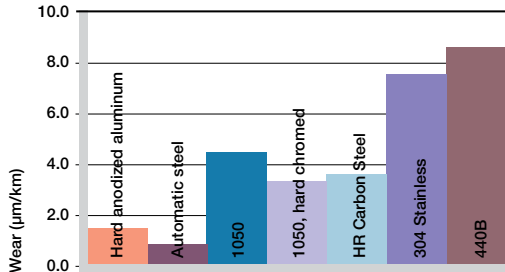
iglide® J2 - Technical Data

iglide®
J2

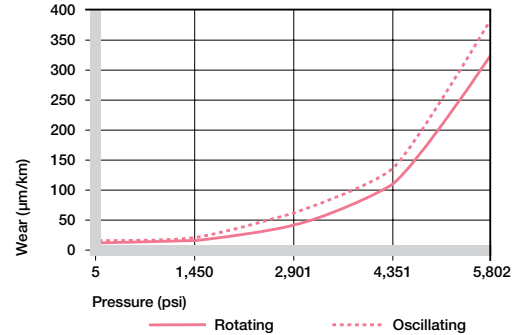
Shaft Materials

The friction and wear are also dependent to a large degree on the shaft material. Shafts that are too smooth, increase both the coefficient of friction and the wear of the bearing. The graph below shows a summary of the results of tests with different shaft materials. It also shows that iglide® J2 delivers good wear values especially with cutting steel in rotation at 145 psi. When running dry, the wear values are sometimes significantly higher on other shafts. Unlike many other iglide® materials, the wear rate in pivoting is slightly higher compared to the rate in rotation with otherwise identical parameters.

► Shaft Materials, Page 71



Wear of iglide® J2, rotating applications with different shaft materials, p = 108 psi, v = 98 fpm

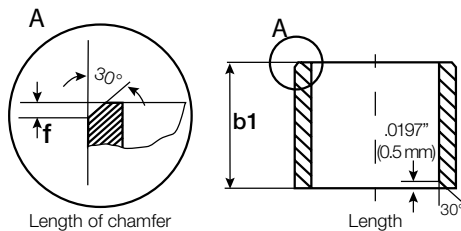


Wear for oscillating and rotating applications with shaft material 1050 hard chromed and ground steel, as a function of the pressure

Installation Tolerances

iglide® J2 plain bearings are meant to be oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings. Please contact an iglide® technical expert for support.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (inches)	Tolerance (h13) (inches)	
0.1181 to 0.2362	-0.0000 /-0.0071	f = .012 → d ₁ .040" - .236"
0.2362 to 0.3937	-0.0000 /-0.0087	f = .019 → d ₁ > .236" - .472"
0.3937 to 0.7086	-0.0000 /-0.0106	f = .031 → d ₁ > .472" - 1.18"
0.7086 to 1.1811	-0.0000 /-0.0130	f = .047 → d ₁ > 1.18"
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		Length of Chamfer (f) Based on d1
Length (mm)	Tolerance (h13) (mm)	
1 to 3	-0 /-140	f = 0.3 → d ₁ 1 - 6 mm
> 3 to 6	-0 /-180	f = 0.5 → d ₁ > 6 - 12 mm
> 6 to 10	-0 /-220	f = 0.8 → d ₁ > 12 - 30 mm
>10 to 18	-0 /-270	f = 1.2 → d ₁ > 30 mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

iglide®
J2

iglide® J2 - Technical Data

Chemical Resistance

iglide® J2 plain bearings are resistant to diluted alkaline and very weak acids, as well as fuels and all types of lubricants.

► Chemical table, Page 1364

Medium	Resistance
Alcohol	+
Hydrocarbon	-
Greases, oils without additives	+
Fuels	+
Weak acids	0
Strong acids	-
Weak alkaline	-
Strong alkaline	-

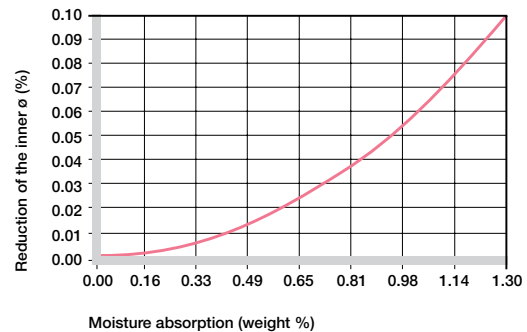
+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® J2

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364

Moisture absorption

The moisture absorption of iglide® J2 plain bearings is approximately 0.2% in ambient conditions. The saturation limit submerged in water is 1.3%. Due to these low values considering expansion by moisture absorption is only required in extreme cases.



Effect of moisture absorption on iglide® J2 plain bearings

Radiation Resistance

Plain bearings made from iglide® J2 are resistant to radiation up to an intensity of applications $3 \cdot 10^2$ Gy.

UV-Resistance

iglide® J2 plain bearings become discoloured under UV radiation. However,

Vacuum

In vacuum applications, any absorbed moisture content is outgassed. Use in vacuum is only possible with dehumidified bearings.

Electrical Properties

iglide® J2 plain bearings are electrically insulating.

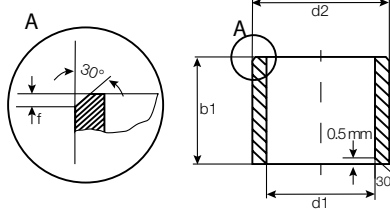
iglide® J2	
Specific volume resistance	> 10^{13} Ωcm
Surface resistance	> 10^{12} Ω

Electrical properties of iglide® J2

iglide® J2 - Product Range

Sleeve bearing - Metric

iglide®
J2



Order key

Type	Dimensions
J2 S M -04 05 -04	
iglide® material	Form S (sleeve)
Metric	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

For tolerance values
please refer to page 593

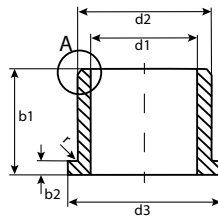
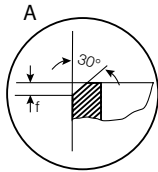
Dimensions according to ISO 3547-1 and special dimensions
*Based on steel housing bore

Part Number	d1	d2	b1 h13	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
J2SM-0608-06	6.0	8.0	6.0	6.020	6.058	8.000	8.015	5.970	6.000
J2SM-0810-10	8.0	10.0	10.0	8.025	8.083	10.000	10.015	7.964	8.000
J2SM-1012-10	10.0	12.0	10.0	10.025	10.083	12.000	12.018	9.964	10.000
J2SM-1214-12	12.0	14.0	12.0	12.032	12.102	14.000	14.018	11.957	12.000
J2SM-1618-15	16.0	18.0	15.0	16.032	16.102	18.000	18.018	15.957	16.000
J2SM-2023-20	20.0	23.0	20.0	20.040	20.124	23.000	23.021	19.948	20.000
J2SM-2528-20	25.0	28.0	20.0	25.040	25.124	28.000	28.021	24.948	25.000

iglide®
J2

iglide® J2 - Product Range

Flange bearing - Metric


Order key

Type	Dimensions
J2	F M -04 05 -04
iglide® material	Form F (flange)
	Metric
	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

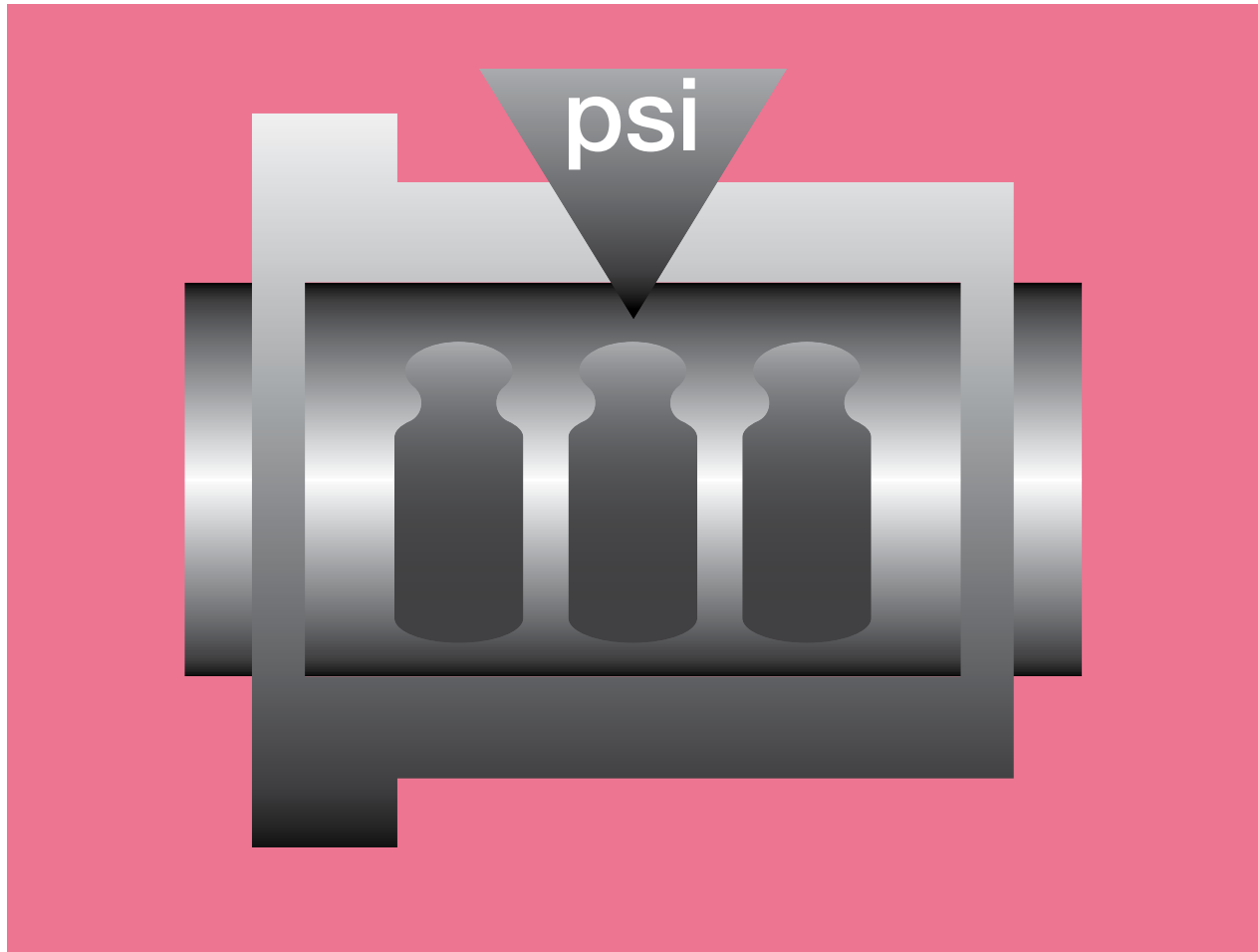
 $r = \max. 0.5$

 For tolerance values
please refer to page 593

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

Part Number	d1 ¹⁾	d2	d3	b1	b2	I.D. After Pressfit*		Housing Bore		Shaft Size	
						Min.	Max.	Min.	Max.	Min.	Max.
J2FM-0608-06	6.0	8.0	12.0	6.0	1.0	6.020	6.068	8.000	8.015	5.970	6.000
J2FM-0810-10	8.0	10.0	15.0	10.0	1.0	8.025	8.083	10.000	10.015	7.964	8.000
J2FM-1012-10	10.0	12.0	18.0	10.0	1.0	10.025	10.083	12.000	12.018	9.964	10.000
J2FM-1214-12	12.0	14.0	20.0	12.0	1.0	12.032	12.102	14.000	14.018	11.957	12.000
J2FM-1618-17	16.0	18.0	24.0	17.0	1.0	16.032	16.102	18.000	18.018	15.957	16.000
J2FM-2023-21	20.0	23.0	30.0	21.0	1.5	20.040	20.124	23.000	23.021	19.948	20.000



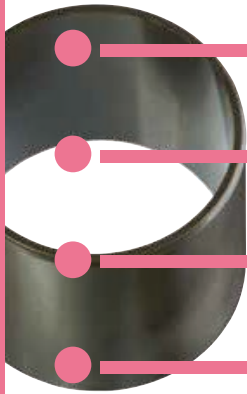
iglide® Q290

- Long life especially on soft shafts
- Resistant to edge loads
- Continuous use up to 284°F
- Good price/performance ratio

iglide®
Q290

iglide® Q290 - Heavy-duty on soft shafts

For moderate to high loads, especially on soft shafts



High service life,
especially on soft shafts

Continuous use
up to 284°F

Resistant to edge loads

Self-lubricating and
maintenance-free

iglide® Q290 shows outstanding service life in robust pivoting applications, as they are frequently found in some agricultural machinery, especially on “soft” coatings (e.g. galvanized).



- If a long-lasting bearing is needed for rugged operating conditions (agricultural equipment, construction machinery etc.) with moderate to high dynamic loads on soft shafts



- If permanent static loads of more than 7,977 psi occur
 - iglide® G300
 - iglide® Q
 - iglide® Q2
- If an extremely wear-resistant bearing is needed on soft shafts for lower loads
 - iglide® J
 - iglide® J3
- If constant temperatures of greater than 284°F occur
 - iglide® J350
 - iglide® Z



Available from stock

Detailed information about delivery time online.



max. +284°F
min. -40°F



Price breaks online

No minimum order.



Ø 20 to 50 mm
more dimensions on request



Typical application areas

- Agriculture
- Construction and utility vehicles

iglide® Q290 - Technical Data

 iglide®
Q290

Material Properties Table

General Properties	Unit	iglide® Q290	Testing Method
Density	g/cm ³	1.27	
Color		black	
Max. moisture absorption at 73°F / 50% r.h.	% weight	3.0	DIN 53495
Max. moisture absorption	% weight	9.3	
Coefficient of friction, dynamic against steel	μ	0.14 - 0.26	
pv value, max. (dry)	psi x fpm	19,500	

Mechanical Properties			
Modulus of elasticity	psi	445,800	DIN 53457
Tensile strength at 68°F	psi	14,070	DIN 53452
Compressive strength	psi	9,863	
Permissible static surface pressure (68°F)	psi	7,977	
Shore D-hardness		80	DIN 53505

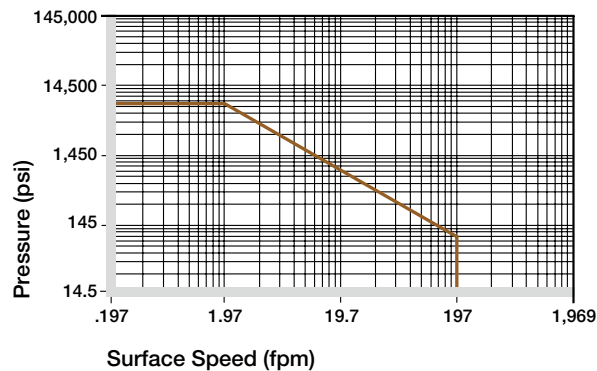
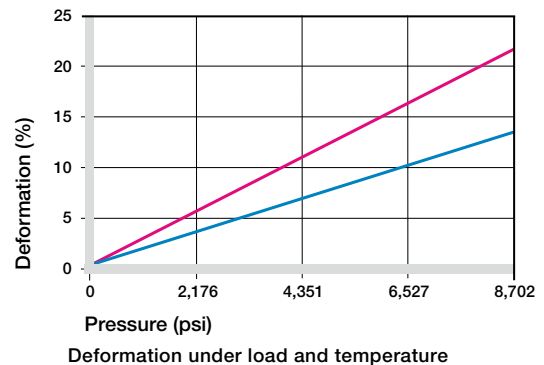
Physical and Thermal Properties			
Max. long-term application temperature	°F	284	
Max. application temperature, short-term	°F	356	
Min. application temperature	°F	-40	
Thermal conductivity	W/m x K	0.24	ASTM C 177
Coefficient of thermal expansion	K ⁻¹ x 10 ⁻⁵	7	DIN 53752

Electrical Properties			
Specific volume resistance	Ωcm	> 10 ¹⁰	DIN IEC 93
Surface resistance	Ω	> 10 ¹²	DIN 53482

Compressive Strength

With increasing temperatures, the compressive strength of iglide® Q290 plain bearings decreases. With the short-term permitted application temperature of +356°F, the permitted surface pressure is still more than 1,450 psi. The recommended maximum surface pressure is a parameter of the material properties. No conclusions regarding the tribological properties can be drawn from this. The graph shows the elastic deformation of iglide® Q290 at radial loads. These high elastic deformation values, even for loads of more than 7,252 psi, contribute significantly to the long service life under rugged environmental conditions such as edge loads, collisions and impacts.

► Compressive strength, Page 63



Permissible pv value for iglide® Q290 running dry against a steel shaft, at 68°F

Permissible Surface Speeds

Typical applications for iglide® Q290 bearings include mid to high-load pivoting movements at comparatively slow speeds. However relatively high speeds are still attainable. The speeds shown in the table are threshold values for low bearing loads. They do not provide any indication of the wear resistance under these parameters.

► Surface speed, Page 64
 ► pv value, Page 65

	Continuous fpm	Short Term fpm
Rotating	157	393
Oscillating	118	275
Linear	197	393

Maximum surface speeds

iglide® Q290 - Technical Data

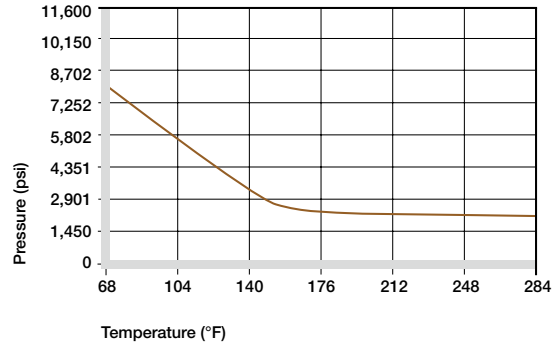
Temperatures

The maximum long-term application temperature of +284°F enables the use of iglide® Q290 in, for example, typical applications in the agricultural, commercial vehicle or construction sectors. Starting at an operating temperature of +176°F, an additional axial safeguard is necessary for the bearing, as a press fit alone is no longer sufficient.

► Application temperatures, Page 67

iglide® Q290	Application Temperature
Minimum	-40°F
Max. long-term	+284°F
Max. short-term	+356°F
Additional axial securing	+176°F

Temperature iglide® Q290



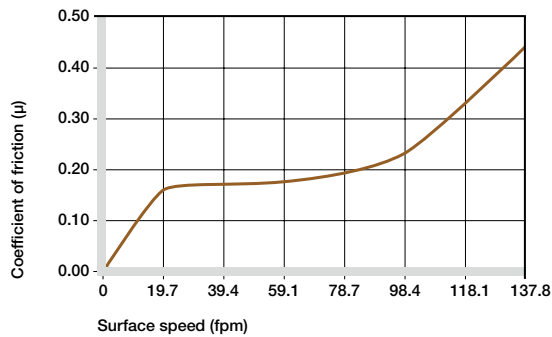
Recommended maximum static surface pressure of iglide® Q290 as a result of the temperature

Friction and Wear

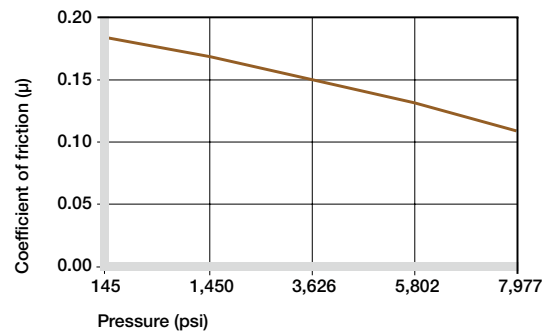
Please note that a sliding surface with a rough surface finish will increase the friction. The coefficient of friction of iglide® Q290 increases as the speed increases. In contrast, the coefficient of friction drops continually with the radial load.

► Coefficients of friction and surfaces, Page 68

► Wear resistance, Page 69



Coefficient of friction as a result of the surface speed;
load = 108 psi constant



Coefficient of friction as a result of the load, v = 1.97 fpm

iglide® Q290	Coefficient of Friction
Dry	0.14 - 0.26
Grease	0.09
Oil	0.04
Water	0.04

Coefficient of friction for iglide® Q290 against steel
(Shaft finish = 40 rms, 50 HRC)

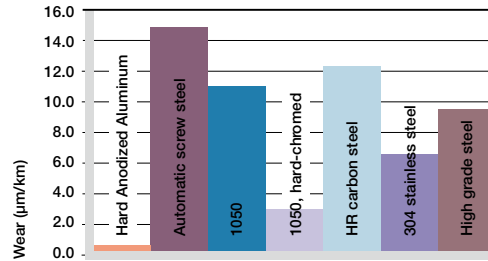
iglide® Q290 - Technical Data

iglide®
Q290

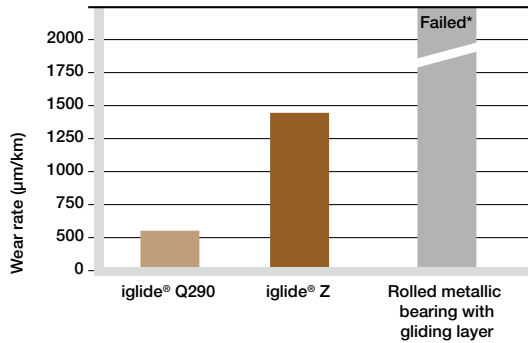
Shaft Materials

Generally, the use of hardened shafts is recommended at loads starting at approximately 1,450 psi. This is often not the case in practice, especially in connection with corrosion-resistant coating methods. Thus, the iglide® Q290 material has a lot of importance in such applications.

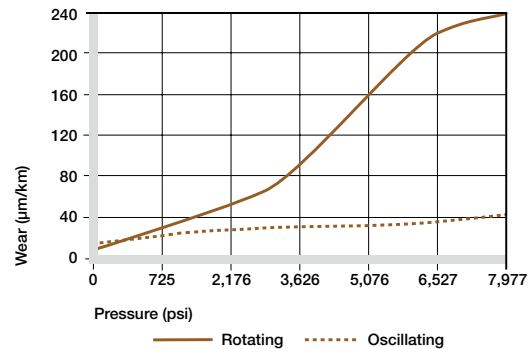
► Shaft Materials, Page 71



Wear of iglide® Q290, rotating application with different shaft materials, $p = 108$ psi, $v = 98$ fpm



Wear, pivoting applications on galvanized shafts, $p > 7,252$ psi, $v = 59$ fpm

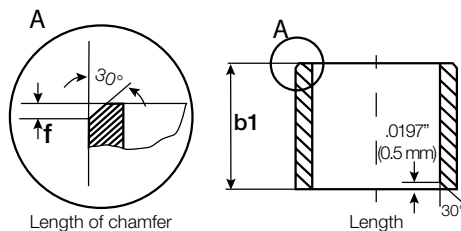


Wear for oscillating and rotating applications with a 1050 hard chromed and ground steel as a function of the pressure

Installation Tolerances

iglide® Q290 plain bearings are oversized before being pressfit. After proper installation into a recommended housing bore, the inner diameter adjusts to meet our specified tolerances. Please adhere to the catalog specifications for housing bore and recommended shaft sizes. This will help to ensure optimal performance of iglide® plain bearings.

► Tolerance table, Page 75
► Testing methods, Page 76



For Inch Size Bearings		
Length Tolerance (b1)		
Length (inches)	Tolerance (h13) (inches)	Length of Chamfer (f) Based on d1
0.1181 to 0.2362	-0.0000 /-0.0071	$f = .012 \rightarrow d_1 .040'' - .236''$
0.2362 to 0.3937	-0.0000 /-0.0087	$f = .019 \rightarrow d_1 > .236'' - .472''$
0.3937 to 0.7086	-0.0000 /-0.0106	$f = .031 \rightarrow d_1 > .472'' - 1.18''$
0.7086 to 1.1811	-0.0000 /-0.0130	$f = .047 \rightarrow d_1 > 1.18''$
1.1811 to 1.9685	-0.0000 /-0.0154	
1.9685 to 3.1496	-0.0000 /-0.0181	

For Metric Size Bearings		
Length Tolerance (b1)		
Length (mm)	Tolerance (h13) (mm)	Length of Chamfer (f) Based on d1
1 to 3	-0 /-140	$f = 0.3 \rightarrow d_1 1 - 6$ mm
> 3 to 6	-0 /-180	$f = 0.5 \rightarrow d_1 > 6 - 12$ mm
> 6 to 10	-0 /-220	$f = 0.8 \rightarrow d_1 > 12 - 30$ mm
>10 to 18	-0 /-270	$f = 1.2 \rightarrow d_1 > 30$ mm
>18 to 30	-0 /-330	
>30 to 50	-0 /-390	
>50 to 80	-0 /-460	

iglide® Q290 - Technical Data

Chemical Resistance

► Chemical table, Page 1364

Medium	Resistance
Alcohol	+ to 0
Hydrocarbon, chlorinated	+
Greases, oils without additives	+
Fuels	+
Weak acids	0 to -
Strong acids	-
Weak alkaline	+
Strong alkaline	+ to 0

+ resistant, 0 conditionally resistant, - not resistant

Chemical resistance of iglide® Q290

All data given concerns the chemical resistance at room temperature (68°F). For a complete list, see Page 1364

Moisture absorption

Under normal climatic conditions, the moisture absorption of iglide® Q290 plain bearings is 3.0 Wt.-%. The saturation limit in water is 9.3 Wt.-%.

Radiation Resistance

Plain bearings made from iglide® Q290 are resistant to radiation up to an intensity of applications $3 \cdot 10^2$ Gy.

UV-Resistance

iglide® Q290 bearings have good resistance to UV rays and other weathering effects.

Vacuum

In a vacuum, any moisture content will outgas. Use in vacuum is only possible to a limited extent.

Electrical Properties

iglide® Q290 plain bearings are electrically insulating.

iglide® Q290

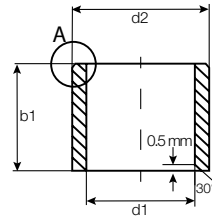
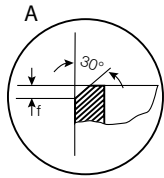
Specific volume resistance	> 10^{10} Ωcm
Surface resistance	> 10^{12} Ω

Electrical properties of iglide® Q290

iglide® Q290 - Product Range

Sleeve bearing - Metric

iglide®
Q290



Order key

Type	Dimensions
Q290 S M -06 08-06	
iglide® material	Form S (sleeve)
	Metric
	Inner-Ø d1 (mm)
	Outer-Ø d2 (mm)
	Length b1 (mm)

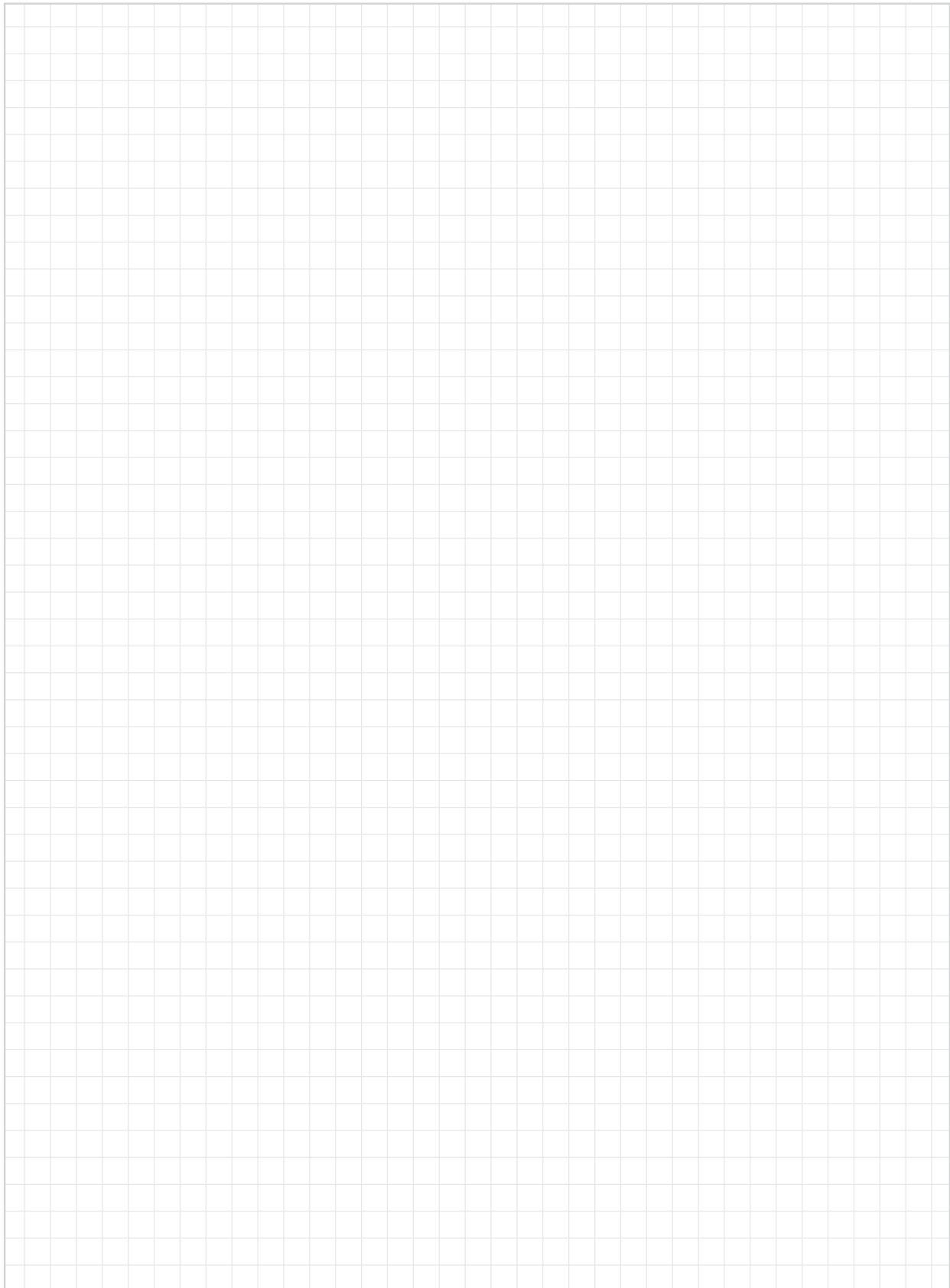
For tolerance values
please refer to page 601

Dimensions according to ISO 3547-1 and special dimensions

*Based on steel housing bore

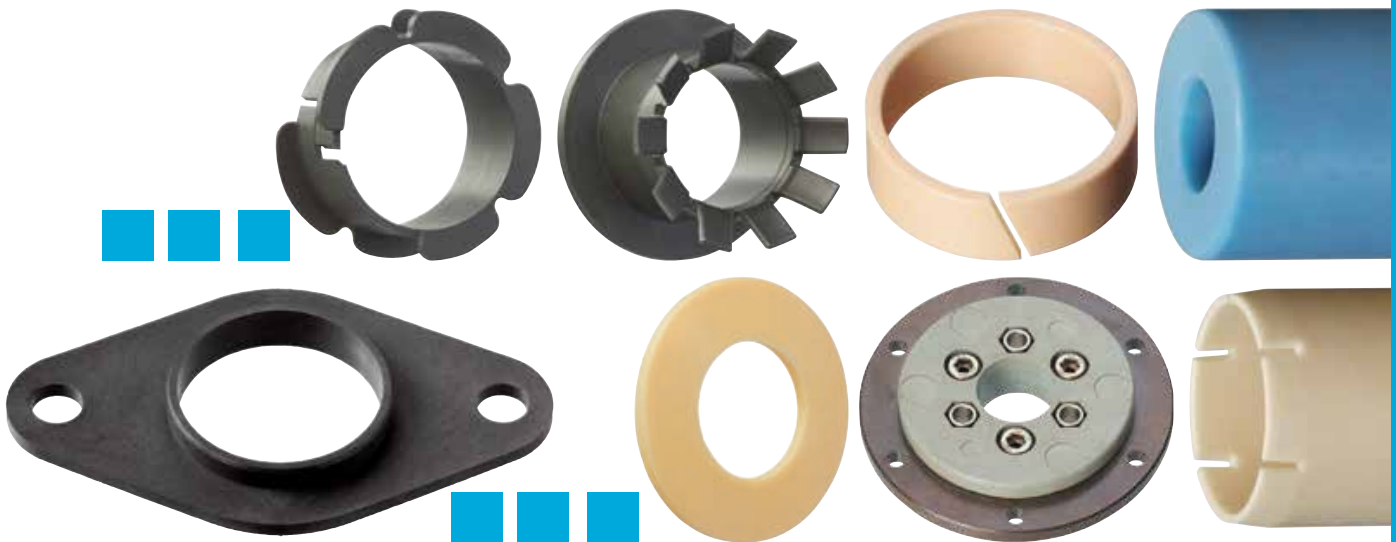
Part Number	d1	d2	b1 ±0.25	I.D. After Pressfit*		Housing Bore		Shaft Size	
				Min.	Max.	Min.	Max.	Min.	Max.
QSM-2023-20	20.0	23.0	20.0	20.040	20.124	23.000	23.021	19.948	20.000
QSM-2528-30	25.0	28.0	30.0	25.040	25.124	28.000	28.021	24.948	25.000
QSM-3034-30	30.0	34.0	30.0	30.040	30.124	34.000	34.025	29.948	30.000
QSM-3539-40	35.0	39.0	40.0	35.050	35.150	39.000	39.025	34.938	35.000
QSM-4044-40	40.0	44.0	40.0	40.050	40.150	44.000	44.025	39.938	40.000
QSM-5055-50	50.0	55.0	50.0	50.050	50.150	55.000	55.030	49.938	50.000

Notes



2. iglide® ...

More products



...plastics

iglide® more products - Product overview

Clip bearings and Piston rings



Clip bearings -
Easy to fit, securely
with the double flange
design

► Page 614



Clip2 bearings -
Easy installation due
to split design
Inch dimensions

► Page 616



Clip2 bearings -
Easy installation due
to split design
Metric dimensions

► Page 617



Clip2 bearings -
With anti-rotation
feature
Inch dimensions

► Page 618



Clip2 bearings -
With anti-rotation
feature
Metric dimensions

► Page 619

Solutions for special applications



Preloaded iglide® J -
Zero play and rattling

► Page 627



Knife edge rollers -
For precise
conveying

► Page 633



Flange bearings -
Secured by screws

► Page 637



Polymer disc springs -
Cushion and
dampen

► Page 641

Slewing ring bearing



Type 01 -
High strength

► Page 650



Type 01 -
With outer drive ring

► Page 651



Type 02 -
Lightweight

► Page 652



Special geometries and
accessories

► Page 653



Universal sliding
pads

► Page 656

iglide® more products - Product overview

iglide®
piston
rings



Flanged bearing -
Press in and
fold down
Custom solution

► Page 620



Double flange bearing -
Press and
plug
Custom solution

► Page 621



Snap-on -
Join and
snap into place
Custom solution

► Page 622



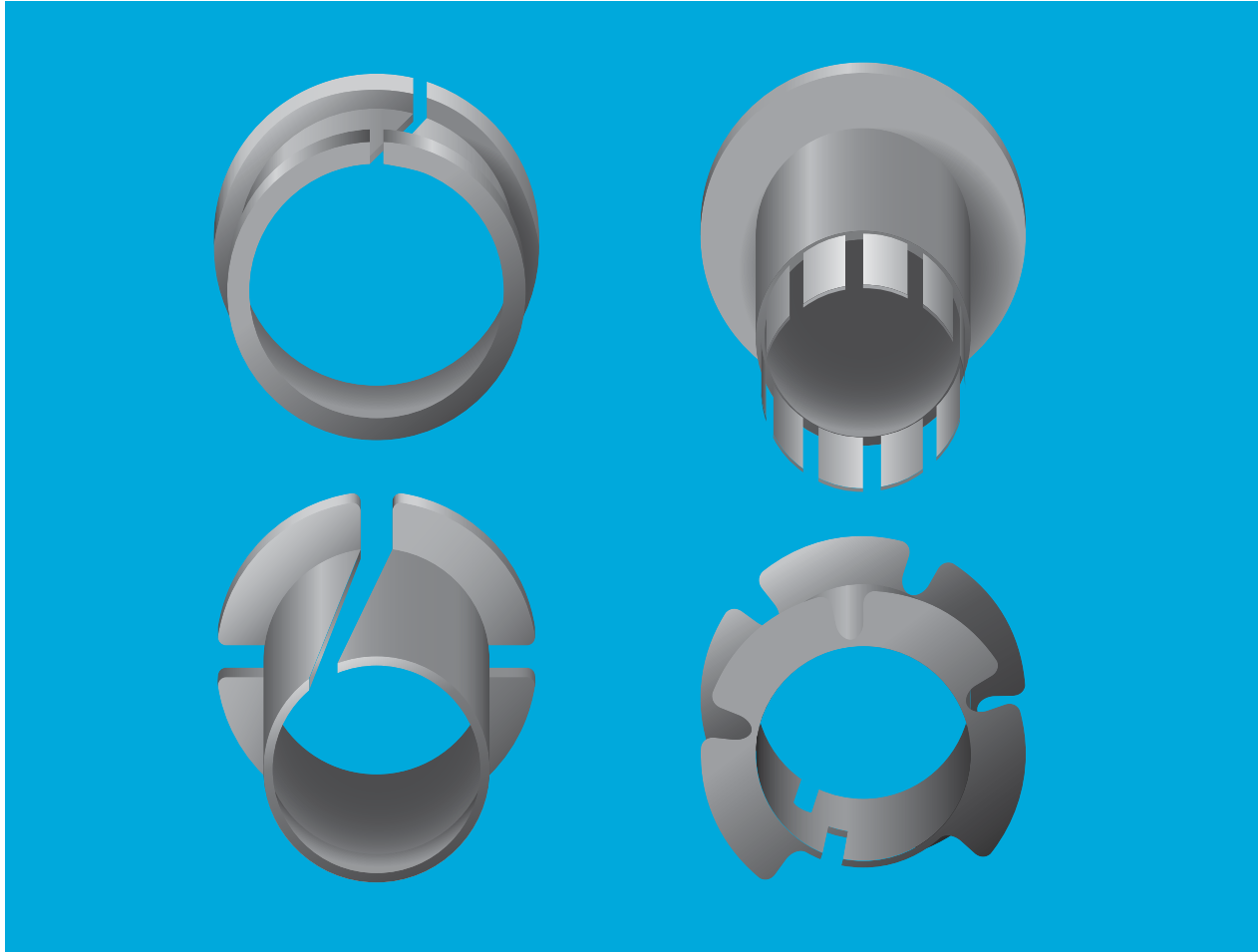
Piston rings -
An alternative to
PTFE tapes

► Page 623



roboLink® D -
Motor-driven iglide® PRT
slewing ring bearings

► Page 657



iglide® Clip Bearings

- Self-lubricating and maintenance-free
- iglide® M250 material
- Easy to fit
- Good abrasion resistance
- Predictable service life
- Custom versions possible

iglide® Clip bearings - Advantages

Solutions for stamped sheet metal



iglide® clip bearing:
Captive with double flange
► Page 614



iglide® Clip2 bearings:
Easy assembly due to lateral slot,
also with anti-rotation feature
► Page 616



Custom solution
iglide® flanged bearings:
Press in and fold down
► Page 620



Custom solution
iglide® double flange bearing:
Clip-in and plug
► Page 621



Custom solution
iglide® snap on:
Connect and snap into place
► Page 622

iglide® clip bearings for fitting shafts through sheet metal

iglide® clip bearings are designed specifically for fitting shafts through sheet metal. For this reason, the bearings have flanges located on both ends. The bearings are secured in the sheet metal plate on both sides after fitting.

The clip bearings have an angled slot which allows the bearings to be fitted from one side. After fitting, the bearing expands and forms a lining for the hole in the metal plate. The shaft prevents the clip bearing from falling out the housing. Even during linear movement, the bearing cannot slide out of the housing.

- Lateral slot for easy installation
- Self-lubricating and maintenance-free
- Good adaptability to punched holes
- Good abrasion resistance
- Quiet
- For rotating and linear movements

Typical industries and applications

- Automotive industry
- Mechanical engineering
- Jigs and fixtures, etc.



Service life calculation
► www.igus.com/iglide-expert



max. +176 °F
min. -40 °F



Material: iglide® M250
6 types
Ø 3–25 mm
more dimensions on request



Ø 3/16 to 1 inches
more dimensions on request



Available from stock
Detailed information about delivery time online.

iglide® Clip bearings - Product overview



iglide® clip bearing

- Easy to fit due to clip-on feature
 - Increased security with the double flange design
 - Good abrasion resistance
- Page 614



iglide® split bearings (Clips2)

- Easy to fit
 - Tolerance compensation with angled slot
 - Low bearing clearance, high precision
- Page 616



Custom solution

iglide® flanged bearings

- Easy to fit
 - Pressfit
 - Axial load on both sides
 - Compensation of tolerances of the sheet metal
- Page 620



Custom solution

iglide® double flange bearing

- Easy to fit due to clip-on feature
 - Large flange surfaces
 - Symmetrical flange
 - Remains in place during E-Coat paint process
- Page 621



Custom solution

iglide® snap On

- The disc is snapped onto the flanged bearing with undercuts
 - Compensation of axial clearance
 - Pre-assembly possible
 - Combination of conductive and non-conductive materials
- Page 622

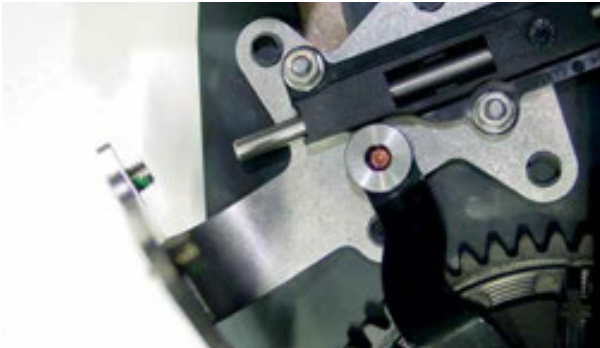
iglide® Clip bearings - Application examples



This cutting mechanism is used in the beverage industry. All used components meet the requirement of freedom from lubrication with low weight and low cost.



Easy-to-clean and low-cost iglide® clip bearings and iglide® flange bearings are used in a honeycomb.



By using wear-resistant iglide® clip bearings, the lowering mechanism for radiator mascots on luxury cars could be improved.



The guide rod in this pharmacy printer has been attached using iglide® clip bearings.



Rattle-free positioning of seat systems with iglide® plain/clip bearings, e.g. inner/tilt and seat height adjustment.

iglide® Clip bearings - Technical data

General properties

The clip bearings have an angled slot which allows the bearings to be fitted from one side. After fitting, the bearing expands and forms a lining for the hole in the metal plate. The shaft prevents the clip bearing from falling out of the housing. Even during linear movement, the bearing cannot slide out of the housing. iglide® clip bearings are made from wear resistant material iglide® M250.

iglide® M250 is a plain bearing material with strong wear resistance at average loads. The bearings are self-lubricating and can be used dry. If required the bearings can also be lubricated. The material iglide® M250 is resistant to all common lubricants.

Mechanical properties

The permissible static pressure of iglide® M250 at room temperature is 2,901 psi. Due to the possibility of high tolerances in the housing bore, the clip bearing has a high compressive strength even for punched holes. For bearing surfaces that are very small, the vibration dampening properties and the resistance to edge loads are especially important.

► iglide® M250, Page 135

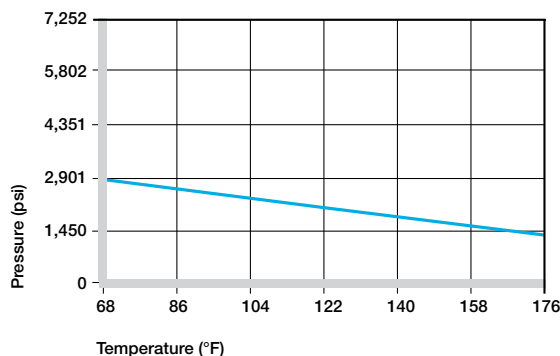


Diagram 01: Recommended maximum surface pressure of as a function of temperature (2,901 psi at +68°F)

Permissible surface speeds

Clip bearings are extremely wear resistant in slow rotating, oscillating, and linear movements. The maximum surface speeds for the different movements are the same as for the material iglide® M250.

With lubrication the permissible speeds can be increased.

► Surface speed, Page 64

	Continuous fpm	Short Term fpm
Rotating	157	393
Oscillating	118	275
Linear	492	984

Maximum surface speeds

Temperatures

For operating temperatures up to +176 °F iglide® clip bearings display high wear resistance. Even in the cold, the plain bearings remain elastic and resistant to wear.

► Application temperatures, Page 67

iglide® M250	Application temperature
Minimum	-40°F
Max. long term	+176°F
Max. short term	+338°F

Temperature limits

Installation

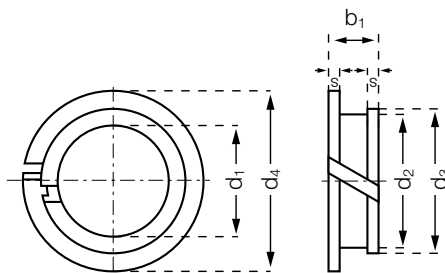
For installation, the plain bearings are pressed together on the side with the large flange. The angled slot makes the bearing spiral shaped so that it can be placed easily into the metal plate.

The slot also compensates for expansions of the circumference. In this way, a tight clearance is possible with the clip bearings. The bearing clearance is dimensioned in such a way that in a housing bore with a nominal diameter, a shaft made with the same nominal diameter turns easily. The clip bearings should be fitted into a housing with a "H" class tolerance, up to H13. The clip bearing can also rotate within the housing bore.

iglide®
clip
bearings

iglide® Clip bearings - Product range

Clip bearings for sheet metals – secured with double flange


Order key

Type	Dimensions
M C I - 06 - 01	
iglide® material	
Clip bearings	
Inch	
Inner-Ø d1 [mm]	
Length b1 - 2s [mm]	


Material:

iglide® M250 ► Page 135

Dimensions [mm]

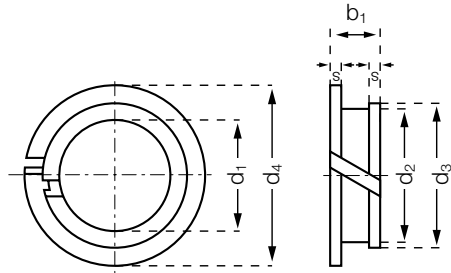
Part Number	d1 D11 ⁷⁾	d2	d3	d4	s	b1	ID of Bearing in Housing	Recommended Sheet Metal Thickness	Recommended Housing Bore		Recommended Shaft Size	
									Max.	Min.	Max.	Min.
MCI-03-01	3/16	0.2343	1/4	5/16	0.032	0.1380	.1885	.040/.075	0.2414	0.2343	0.1875	0.1865
MCI-03-02	3/16	0.2343	1/4	5/16	0.032	0.2000	.1885	.072/.135	0.2414	0.2343	0.1875	0.1865
MCI-04-01	1/4	0.3125	11/32	7/16	0.032	0.1380	.2510	.040/.075	0.3212	0.3125	0.2500	0.2490
MCI-04-02	1/4	0.3125	11/32	7/16	0.032	0.2000	.2510	.072/.135	0.3212	0.3125	0.2500	0.2490
MCI-05-01	5/16	0.3750	13/32	1/2	0.032	0.1380	.3135	.040/.075	0.3834	0.3750	0.3125	0.3115
MCI-05-02	5/16	0.3750	13/32	1/2	0.032	0.2000	.3135	.072/.135	0.3834	0.3750	0.3125	0.3115
MCI-06-01	3/8	0.4375	15/32	9/16	0.032	0.1380	.3760	.040/.075	0.4481	0.4375	0.3750	0.3740
MCI-06-02	3/8	0.4375	15/32	9/16	0.032	0.2000	.3760	.072/.135	0.4481	0.4375	0.3750	0.3740
MCI-07-01	7/16	0.5000	17/32	5/8	0.032	0.1380	.4385	.040/.075	0.5106	0.5000	0.4375	0.4365
MCI-07-02	7/16	0.5000	17/32	5/8	0.032	0.2000	.4385	.072/.135	0.5106	0.5000	0.4375	0.4365
MCI-08-01	1/2	0.5625	19/32	11/16	0.032	0.1380	.5010	.040/.075	0.5731	0.5625	0.5000	0.4990
MCI-08-02	1/2	0.5625	19/32	11/16	0.032	0.2000	.5010	.072/.135	0.5731	0.5625	0.5000	0.4990
MCI-08-03	1/2	0.5625	19/32	11/16	0.032	0.2480	.5010	.183/.120	0.5731	0.5625	0.5000	0.4990
MCI-10-01	5/8	0.6875	23/32	7/8	0.032	0.1380	.6260	.040/.075	0.6981	0.6875	0.6250	0.6240
MCI-10-02	5/8	0.6875	23/32	7/8	0.032	0.2000	.6260	.072/.135	0.6981	0.6875	0.6250	0.6240
MCI-12-01	3/4	0.8125	27/32	1	0.032	0.1380	.7510	.040/.075	0.8255	0.8125	0.7500	0.7490
MCI-12-02	3/4	0.8125	27/32	1	0.032	0.2000	.7510	.072/.135	0.8255	0.8125	0.7500	0.7490

⁷⁾ d1 value is measured with a plug gauge after fitting into a reference housing d2 (+0.005). Please see D11 tolerances table ► Page 75

iglide® Clip bearings - Product range


Clip bearings for sheet metals – secured with double flange

iglide®
clip
bearings



 Order key

Type	Dimensions
M C M - 06 - 015	
iglide® material	Clip bearings
Metric	Inner-Ø d1 [mm]
	Length b1-2s [mm]

 Material:
iglide® M250 ▶ Page 135

Dimensions [mm]

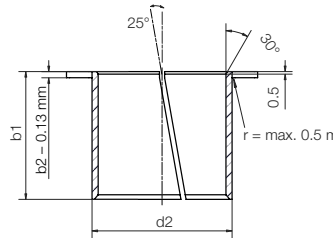
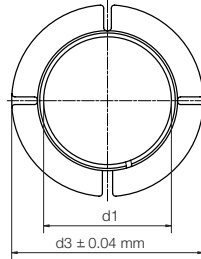
Part Number	d1 D11 ⁷⁾	d2	d3	d4	s	b1	ID of Bearing in Housing	Recommended Sheet Metal Thickness	Recommended Housing Bore		Recommended Shaft Size	
									Max.	Min.	Max.	Min.
MCM-03-02	3	4.2	4.8	6	0.6	3.2	3.025	2.34/1.45	4.380	4.200	3.000	2.975
MCM-03-03	3	4.2	4.8	6	0.6	4.2	3.025	3.13/2.87	4.380	4.200	3.000	2.975
MCM-04-02	4	5.2	5.9	7	0.6	3.2	4.025	2.34/1.45	5.380	5.200	4.000	3.975
MCM-04-03	4	5.2	5.9	7	0.6	4.2	4.025	3.13/2.87	5.380	5.200	4.000	3.975
MCM-05-02	5	6.2	6.8	8	0.6	3.2	5.025	2.34/1.45	6.420	6.200	5.000	4.975
MCM-05-03	5	6.2	6.8	8	0.6	4.2	5.025	3.13/2.87	6.420	6.200	5.000	4.975
MCM-06-015	5	6.2	6.8	8	0.6	4.2	6.025	2.34/1.45	7.420	7.200	6.000	5.975
MCM-06-02	6	7.2	7.8	11	0.6	3.2	6.025	2.34/1.45	7.420	7.200	6.000	5.975
MCM-06-03	6	7.2	7.8	11	0.6	4.2	6.025	3.13/2.87	7.420	7.200	6.000	5.975
MCM-06-04	6	7.2	7.8	11	0.6	5.2	6.025	4.40/4.00	7.420	7.200	6.000	5.975
MCM-07-03	7	9	9.8	13	0.8	4.6	7.025	3.13/2.87	9.220	9.000	7.000	6.975
MCM-08-02	8	9.6	10.4	13	0.8	3.6	8.025	2.34/1.45	9.820	9.600	8.000	7.975
MCM-08-03	8	9.6	10.4	13	0.8	4.6	8.025	3.13/2.87	9.820	9.600	8.000	7.975
MCM-08-04	8	9.6	13.0	10.4	0.8	5.6	8.025	3.13/2.87	9.820	9.600	8.000	7.975
MCM-09-02	9	10.6	11.4	14	0.8	3.6	9.025	2.34/1.45	10.870	10.600	9.000	8.975
MCM-10-02	10	11.6	12.4	15	0.8	3.6	10.025	2.34/1.45	11.870	11.600	10.000	9.975
MCM-10-025	10	11.6	12.4	15	0.8	4.1	10.025	2.34/1.45	11.870	11.600	10.000	9.975
MCM-10-03	10	11.6	12.4	15	0.8	4.6	10.025	3.13/2.87	11.870	11.600	10.000	9.975
MCM-10-08	10	11.6	12.4	15	0.8	9.6	10.025	3.13/2.87	11.870	11.600	10.000	9.975
MCM-12-02	12	13.6	14.4	17	0.8	3.6	12.025	2.34/1.45	13.870	13.600	12.000	11.975
MCM-12-025	12	13.6	14.4	17	0.8	4.4	12.025	2.34/1.45	13.870	13.600	12.000	11.975
MCM-12-03	12	13.6	14.4	17	0.8	4.6	12.025	3.13/2.87	13.870	13.600	12.000	11.975
MCM-12-035	12	13.6	14.4	17	0.8	5.1	12.025	3.13/2.87	13.870	13.600	12.000	11.975
MCM-12-04	12	13.6	14.4	17	0.8	5.6	12.025	4.40/4.00	13.870	13.600	12.000	11.975
MCM-14-03	14	15.6	16.4	19	0.8	4.6	14.025	3.13/2.87	15.870	15.600	14.000	13.975
MCM-16-02	16	17.6	18.4	21	0.8	3.6	16.025	2.34/1.45	17.870	17.600	16.000	15.975
MCM-16-03	16	17.6	18.4	21	0.8	4.6	16.025	3.13/2.87	17.870	17.600	16.000	15.975
MCM-18-02	18	20	21	21	0.8	4	18.025	3.13/2.87	20.330	20.000	18.000	17.975
MCM-18-03	18	20	21	23	1.0	5.0	18.025	3.13/2.87	20.330	20.000	18.000	17.975
MCM-20-03	20	22	23	25	1.0	5.0	20.025	3.13/2.87	22.330	22.000	20.000	19.975
MCM-25-03	25	27	28	30	1.0	5.0	25.025	3.13/2.87	27.330	27.000	25.000	24.975
MCM-25-06	25	27	28	30	1	8	25.025	3.13/2.87	27.330	27.000	25.000	24.975

⁷⁾ d1 value is measured with a plug gauge after fitting into a reference housing d2 (+0.005). Please see D11 tolerances table ▶ Page 75

iglide®
clip
bearings

iglide® Clip bearings - Product range

Split bearings (Clip2) – easy assembly


Order key

Type Dimensions

M Y I - 04 - 04

iglide® material	Form: Clips2	Inch	Inner-Ø d1 [inch] Based on 1/16"	Length b1 [mm] Based on 1/16"
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Material:
 iglide® M250 ► Page 135
 with anti-rotation feature ► Page 618

Dimensions [mm]

Part Number	d1	d2	d3	b1	b2	W	Recommended Housing Bore		Recommended Shaft Size	
							Max.	Min.	Max.	Min.
MYI-03-03	3/16	0.2339	5/16	3/16	0.0252	25°	0.2351	0.2339	0.1875	0.1865
MYI-04-04	1/4	0.2965	13/32	1/4	0.0252	25°	0.2979	0.2965	0.2500	0.2490
MYI-05-05	5/16	0.3744	1/2	5/16	0.0299	25°	0.3758	0.3744	0.3125	0.3115
MYI-06-06	3/8	0.4370	19/32	3/8	0.0299	25°	0.4387	0.4370	0.3750	0.3740
MYI-07-07	7/16	0.4996	21/32	7/16	0.0299	25°	0.5013	0.4996	0.4375	0.4365
MYI-08-06	1/2	0.5618	3/4	3/8	0.0299	25°	0.5635	0.5618	0.5000	0.4990
MYI-08-08	1/2	0.5618	3/4	1/2	0.0299	25°	0.5635	0.5618	0.5000	0.4990
MYI-10-07	5/8	0.6870	15/16	7/16	0.0299	25°	0.6887	0.6870	0.6250	0.6240
MYI-10-10	5/8	0.6870	15/16	5/8	0.0299	25°	0.6887	0.6870	0.6250	0.6240
MYI-10-18	5/8	0.6870	15/16	1 1/8	0.0299	25°	0.6887	0.6870	0.6250	0.6240
MYI-12-12	3/4	0.8118	1 1/8	3/4	0.0299	25°	0.8139	0.8118	0.7500	0.7490
MYI-12-18	3/4	0.8118	1 1/8	1 1/8	0.0299	25°	0.8139	0.8118	0.7500	0.7490
MYI-14-7.5	7/8	0.9370	1 5/16	15/32	0.0299	25°	0.9391	0.9370	0.8750	0.8740
MYI-14-14	7/8	0.9370	1 5/16	7/8	0.0299	25°	0.9391	0.9370	0.8750	0.8740
MYI-16-10	1	1.0933	1 1/2	5/8	0.0449	25°	1.0954	1.0933	1.0000	0.9985
MYI-16-14	1	1.0933	1 1/2	7/8	0.0449	25°	1.0954	1.0933	1.0000	0.9985
MYI-16-16	1	1.0933	1 1/2	1	0.0449	25°	1.0954	1.0933	1.0000	0.9985

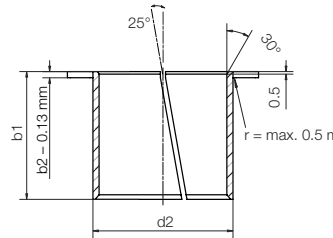
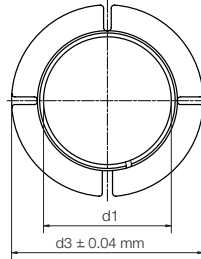
⁷⁾ d1 value is measured with a plug gauge after fitting into a reference housing d2 (+0.005)

⁹⁾ Recommended housing bore tolerance: H9

iglide® Clip bearings - Product range

Split bearings (Clip2) – easy assembly

iglide®
clip
bearings



Material:
iglide® M250 ► Page 135
with anti-rotation feature ► Page 619



Order key

Type

Dimensions

M Y M - 04 - 04

iglide® material

Form: Clips2

Metric

Inner-Ø d1 [mm]

Length
b1-2s [mm]

Dimensions [mm]

Part Number	d1	d2	d3	b1	b2	W	Recommended Housing Bore		Recommended Shaft Size	
							Max.	Min.	Max.	Min.
MYM-04-04	4	5.2	7.0	4.0	0.6	25°	5.230	5.200	4.000	3.975
MYM-05-05	5	6.2	8.0	5.0	0.6	25°	6.236	6.200	5.000	4.975
MYM-06-06	6	7.2	9.5	6.0	0.6	25°	7.236	7.200	6.000	5.975
MYM-08-08	8	9.6	12.0	8.0	0.8	25°	9.636	9.600	8.000	7.975
MYM-10-10	10	11.6	15.0	10.0	0.8	25°	11.643	11.600	10.000	9.975
MYM-12-06	12	13.6	18.0	6.0	0.8	25°	13.643	13.600	12.000	11.975
MYM-12-12	12	13.6	18.0	12.0	0.8	25°	13.643	13.600	12.000	11.975
MYM-14-14	14	15.6	21.0	14.0	0.8	25°	15.643	15.600	14.000	13.975
MYM-16-16	16	17.6	24.0	16.0	0.8	25°	17.643	17.600	16.000	15.975

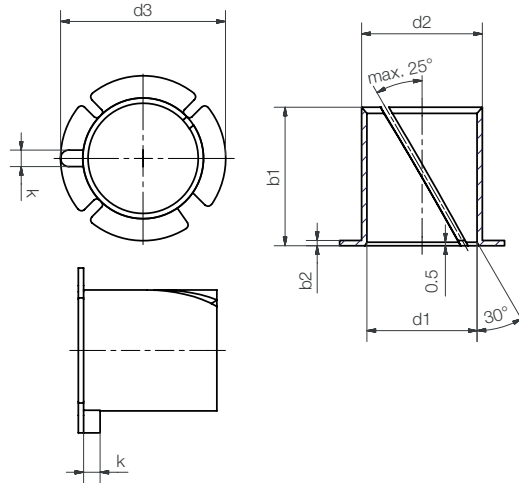
⁷⁾ d1 value is measured with a plug gauge after fitting into a reference housing d2 (+0.005)

⁹⁾ Recommended housing bore tolerance: H9

iglide®
clip
bearings

iglide® Clip bearings - Product range

Split bearing with anti-rotation feature


Order key

Type	Dimensions	Option
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M Y I - 04 - 04 K

iglide® material	Form: Clips2	Inch	Inner-Ø d1 [inch] Based on 1/16"	Length b1 [mm] Based on 1/16"	Anti rotation feature
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Material:
 iglide® M250 ▶ Page 135

Dimensions [mm]

Part Number	d1	d2	d3	b1	b2	W	Recommended Housing Bore		Recommended Shaft Size	
							Max.	Min.	Max.	Min.
MYI-03-03K	3/16	0.2339	5/16	3/16	0.0252	25°	0.2351	0.2339	0.1875	0.1865
MYI-04-04K	1/4	0.2965	13/32	1/4	0.0252	25°	0.2979	0.2965	0.2500	0.2490
MYI-05-05K	5/16	0.3744	1/2	5/16	0.0299	25°	0.3758	0.3744	0.3125	0.3115
MYI-06-06K	3/8	0.4370	19/32	3/8	0.0299	25°	0.4387	0.4370	0.3750	0.3740
MYI-07-07K	7/16	0.4996	21/32	7/16	0.0299	25°	0.5013	0.4996	0.4375	0.4365
MYI-08-06K	1/2	0.5618	3/4	3/8	0.0299	25°	0.5635	0.5618	0.5000	0.4990
MYI-08-08K	1/2	0.5618	3/4	1/2	0.0299	25°	0.5635	0.5618	0.5000	0.4990
MYI-10-07K	5/8	0.6870	15/16	7/16	0.0299	25°	0.6887	0.6870	0.6250	0.6240
MYI-10-10K	5/8	0.6870	15/16	5/8	0.0299	25°	0.6887	0.6870	0.6250	0.6240
MYI-10-18K	5/8	0.6870	15/16	1 1/8	0.0299	25°	0.6887	0.6870	0.6250	0.6240
MYI-12-12K	3/4	0.8118	1 1/8	3/4	0.0299	25°	0.8139	0.8118	0.7500	0.7490
MYI-12-18K	3/4	0.8118	1 1/8	1 1/8	0.0299	25°	0.8139	0.8118	0.7500	0.7490
MYI-14-7.5K	7/8	0.9370	1 5/16	15/32	0.0299	25°	0.9391	0.9370	0.8750	0.8740
MYI-14-14K	7/8	0.9370	1 5/16	7/8	0.0299	25°	0.9391	0.9370	0.8750	0.8740
MYI-16-10K	1	1.0933	1 1/2	5/8	0.0449	25°	1.0954	1.0933	1.0000	0.9985
MYI-16-14K	1	1.0933	1 1/2	7/8	0.0449	25°	1.0954	1.0933	1.0000	0.9985
MYI-16-16K	1	1.0933	1 1/2	1	0.0449	25°	1.0954	1.0933	1.0000	0.9985

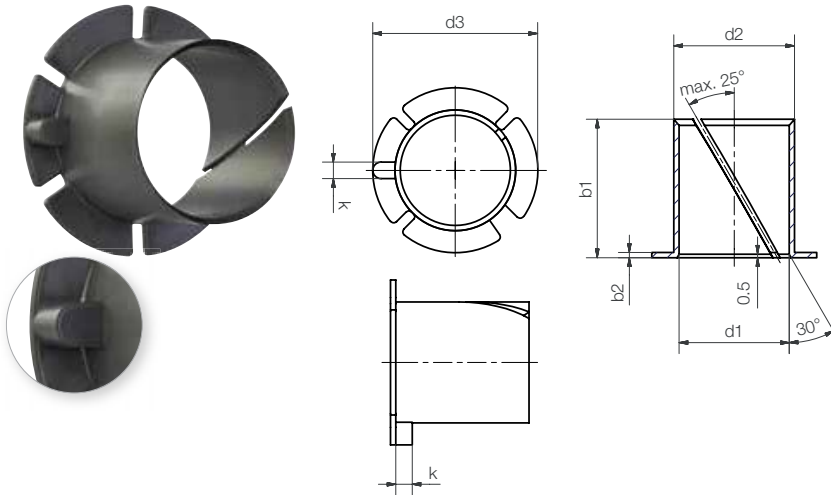
⁷⁾ d1 value is measured with a plug gauge after fitting into a reference housing d2 (+0.005)

⁹⁾ Recommended housing bore tolerance: H9

iglide® Clip bearings - Product range

Flanged bearings – press in and fold down

iglide®
clip
bearings



Order key

Type Dimensions Option

M Y M - 04 - 04 K

iglide® material	Form: Clips2	Metric	Inner-Ø d1 [mm]	Length b1 [mm]	Anti rotation feature
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Material:
iglide® M250 ▶ Page 135

Dimensions [mm]

Part Number	d1	d2	d3	b1	b2	W	Recommended Housing Bore		Recommended Shaft Size	
							Max.	Min.	Max.	Min.
MYM-04-04K	4	5.2	7.0	4.0	0.6	25°	5.230	5.200	4.000	3.975
MYM-05-05K	5	6.2	8.0	5.0	0.6	25°	6.236	6.200	5.000	4.975
MYM-06-06K	6	7.2	9.5	6.0	0.6	25°	7.236	7.200	6.000	5.975
MYM-08-08K	8	9.6	12.0	8.0	0.8	25°	9.636	9.600	8.000	7.975
MYM-10-10K	10	11.6	15.0	10.0	0.8	25°	11.643	11.600	10.000	9.975
MYM-12-06K	12	13.6	18.0	6.0	0.8	25°	13.643	13.600	12.000	11.975
MYM-12-12K	12	13.6	18.0	12.0	0.8	25°	13.643	13.600	12.000	11.975
MYM-14-14K	14	15.6	21.0	14.0	0.8	25°	15.643	15.600	14.000	13.975
MYM-16-16K	16	17.6	24.0	16.0	0.8	25°	17.643	17.600	16.000	15.975

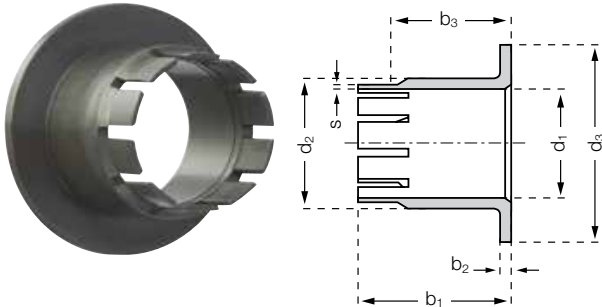
⁷⁾ d1 value is measured with a plug gauge after fitting into a reference housing d2 (+0.005)

⁹⁾ Recommended housing bore tolerance: H9

iglide®
clip
bearings

iglide® Clip bearings - Custom solution

Flanged bearings – press in and fold down



i Material:
iglide® M250 ▶ Page 135


 Order key

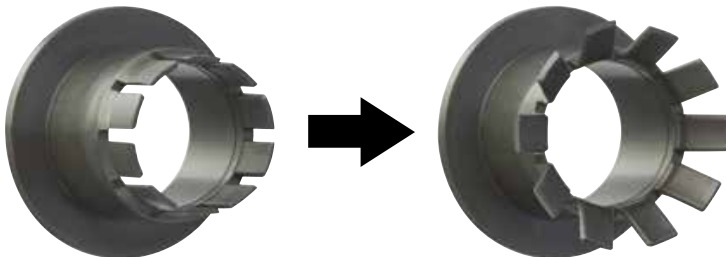
Type	Dimensions
M	K M - 10 12 - 10
iglide® material	
Type (Form K)	
Metric	
Inner-Ø d1 [mm]	
Outer-Ø d2 [mm]	
Sheet metal thickness [mm]	

Sample dimension [mm]

Part No.	d1	d1 Tolerance E10	d2	d3 d13	b1 h13	b2	b3	s
MKM-1012-10	10	+0.025 +0.083	12	18	14	-0.14	+0.1/+0.7	±0.1

³⁾ After pressfit. Testing methods ▶ Page 76

 Assembly:



Press in, fold down, ready: axial load on both sides

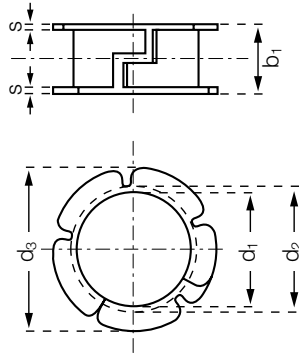


i Please contact us if you need a custom-made bearing for your application.
We will help you with your design, drawing on the experience that we have with a large number of custom bearing solutions.

iglide® Clip bearings - Custom solution

Double flange bearing – press and plug

iglide®
clip
bearings



Material:
iglide® M250 ▶ Page 135



Order key

Type	Dimensions
M D M - 12 13 - 06	
iglide® material	
Type (Form D)	
Metric	
Inner-Ø d1 [mm]	
Outer-Ø d2 [mm]	
Sheet metal thickness [mm]	

Sample dimension [mm]

Part No.	d1	d1 Tolerance [®]	d2	d3	b1	s
MDM-1213-06	12	+0.050 +0.160	13	16.5	7	0.5

[®] d1 value is measured with a plug gauge after fitting into a reference housing d2 (+0.005)



Assembly:



Please contact us if you need a custom-made bearing for your application.
We will help you with your design, drawing on the experience that we have with a large number of custom bearing solutions.

iglide®
clip
bearings

iglide® Clip bearings - Custom solution

iglide® Snap-On: connect and snap into place



Material:
iglide® M250 ► Page 135

The solution for all applications in stamped sheet metal retainers

iglide® Snap-On are frequently used in seat and convertible top systems and multi-joint hinges. iglide® clip-on bearings facilitate captive assembly even in punched sheet metal / steering arms with limited fine blanking content.

- Compensation of axial clearance
- Pre-assembly possible
- Electrically conductive materials are available
- Pressure-resistant materials up to 11,600 psi

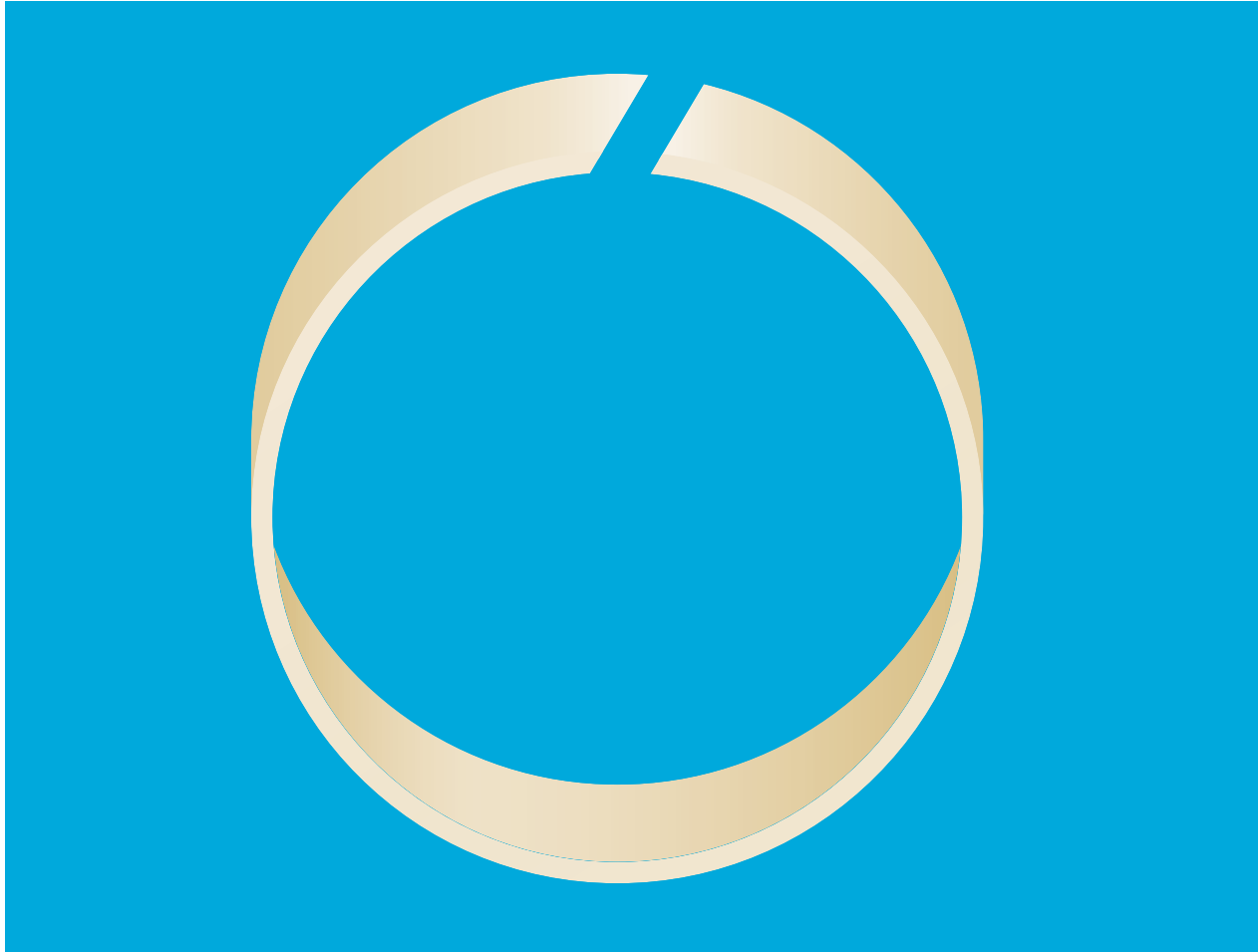
The Snap-On bearings can also be produced from electrically conducting iglide® RN89, thus permitting e-coating.



Assembly:
The disc is snap on to the flange bushing with undercuts.



Please contact us if you need a custom-made bearing for your application. We will help you with your design, drawing on the experience that we have with a large number of custom bearing solutions.

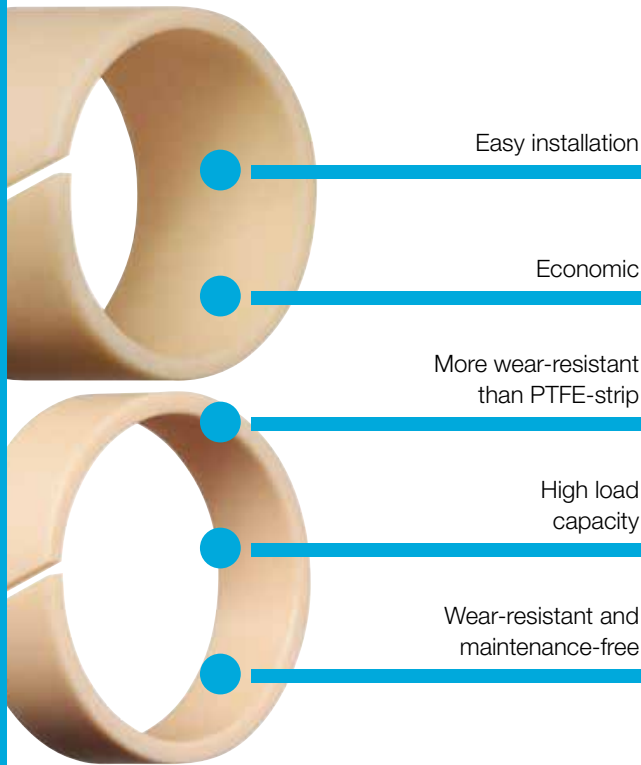


iglide[®] Piston Rings

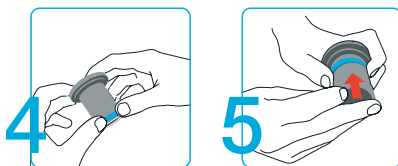
- Easy installation
- Economic
- More wear resistant than PTFE-strips
- High load capacity
- Standard range from stock

iglide® Piston rings - Advantages

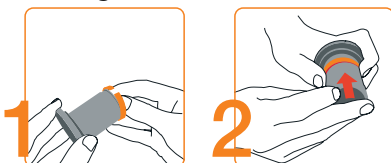
Easy and economic: iglide® piston rings



Traditional method:



with iglide®:



iglide® piston rings

Why complicate things if you do not need to? Some things can actually be very easy: Replace complex stamped PTFE strips with a single clip-on guide ring, for example in cylinders, control valves and fittings. In addition to the standard iglide® J range, it is also possible to configure your desired piston ring from the entire iglide® bearing range.




When to use it?


- When piston rings with excellent wear properties are required
- When simple assembly is of great importance
- When high edge loads occur
- When tailor-made solutions based on iglide® materials are required




When not to use it?

- When the piston rings should also act as a seal
- When different diameters should be covered by one part

 More Information about iglide® material and technical data **iglide® J** ► **Page 115**

 **max. +194°F**
min. -58°F

 **Ø 6–70 mm**
more dimensions on request

 **Available from stock**
Detailed information about delivery time online.

iglide® Piston rings - Product range

iglide® J piston rings, from stock

iglide®
piston
rings

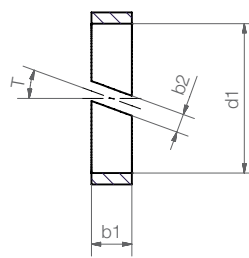
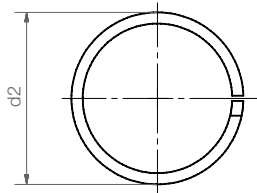
Custom options using standard iglide® J bearings



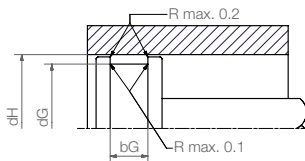
Order key

Type Dimensions

J PR M -10 12-054

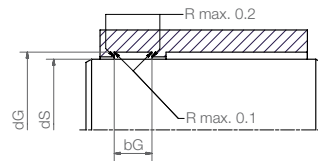


iglide® material	Piston ring	Metric	Inner-Ø [mm]	Outer Ø [mm]	Length [mm]
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Installation recommendation for piston

Dimensions [mm]	dG (h-tolerate)	dH (h-tolerate)	bG
Nominal size	dG = d1	dH = d2	bG = b1 +0.2



Installation recommendation for housing

Dimensions [mm]	dS (h-tolerate)	dG (h-tolerate)	bG
Nominal size	dS = d1	dG = d2	bG = b1 +0.2

Dimensions [mm]

Part No.	d1	d2	b1 h13	b2 ±0.5	T [°]
JPRM-0608-06	6	8	6	1.0	0
JPRM-0810-10	8	10	10	1.0	0
JPRM-1012-054	10	12	5.4	2.5	20
JPRM-1214-054	12	14	5.4	2.5	20
JPRM-1416-054	14	16	5.4	2.5	20
JPRM-1416-10	14	16	10	1.0	20
JPRM-1618-054	16	18	5.4	2.5	20
JPRM-1722-054	17	22	5.4	2.5	25
JPRM-2023-054	20	23	5.4	2.5	20
JPRM-2528-054	25	28	5.4	2.5	20
JPRM-2832-10	28	32	10	1.0	20
JPRM-2832-20	28	32	20	1.0	20
JPRM-2833-054	28	33	5.4	2.5	25
JPRM-3034-054	30	34	5.4	2.5	20
JPRM-3539-054	35	39	5.4	2.5	20
JPRM-3540-054	35	40	5.4	2.5	25
JPRM-4044-054	40	44	5.4	2.5	20
JPRM-4550-054	45	50	5.4	2.5	20

Part No.	d1	d2	b1 h13	b2 ±0.5	T [°]
JPRM-4550-10	45	50	10	2.0	0
JPRM-5055-054	50	55	5.4	2.5	20
JPRM-5055-10	50	55	10	2.0	0
JPRM-5863-095	58	63	9.5 (-0.22)	2.5	25
JPRM-6065-054	60	65	5.4	2.5	20
JPRM-7075-054	70	75	5.4	2.5	20

iglide®
piston
rings

iglide® Piston rings - Product range

Custom-made piston rings

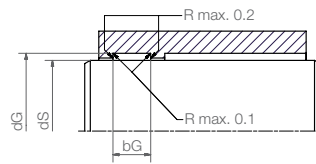
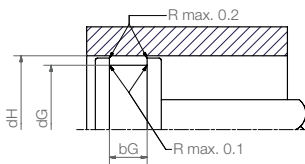
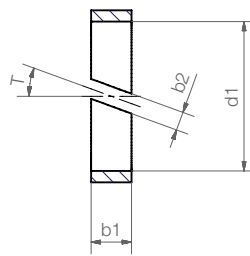
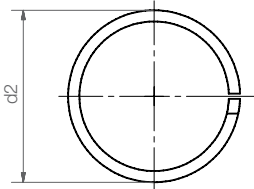
In addition to the stock range of iglide® J piston rings, you can also select your desired piston ring on the basis of the entire iglide® bearing range.

Use the entire iglide® bearing range and choose the material best suited to your application. Your piston ring will be delivered within 10 days – to your requirements.



Order key

Type	Dimensions
<input type="checkbox"/> PR M - 06	08 - 06
iglide® required material	Piston ring
	Metric
	Required Inner Ø [mm]
	Required Outer Ø [mm]
	Required length [mm]



Installation recommendation for piston

Dimensions [mm]	dG (h-tolerate)	dH (h-tolerate)	bG
Nominal size	dG = d1	dH = d2	bG = b1 + 0.2

Installation recommendation for housing

Dimensions [mm]	dS (h-tolerate)	dG (h-tolerate)	bG
Nominal size	dS = d1	dG = d2	bG = b1 + 0.2



Our material recommendations for special requirements:

- iglide® A180: FDA-compliant ► Page 423
- iglide® J350: > +356 °F ► Page 279
- iglide® H1: Temperature up to +392 °F ► Page 377



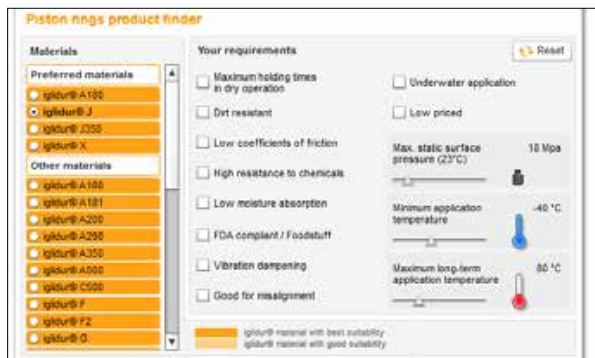
In addition to mechanical processing of existing iglide® bearings to piston rings, we also develop custom-made piston ring solutions for your volume requirements. Please contact us. We will support you with your design and create an appropriate proposal.

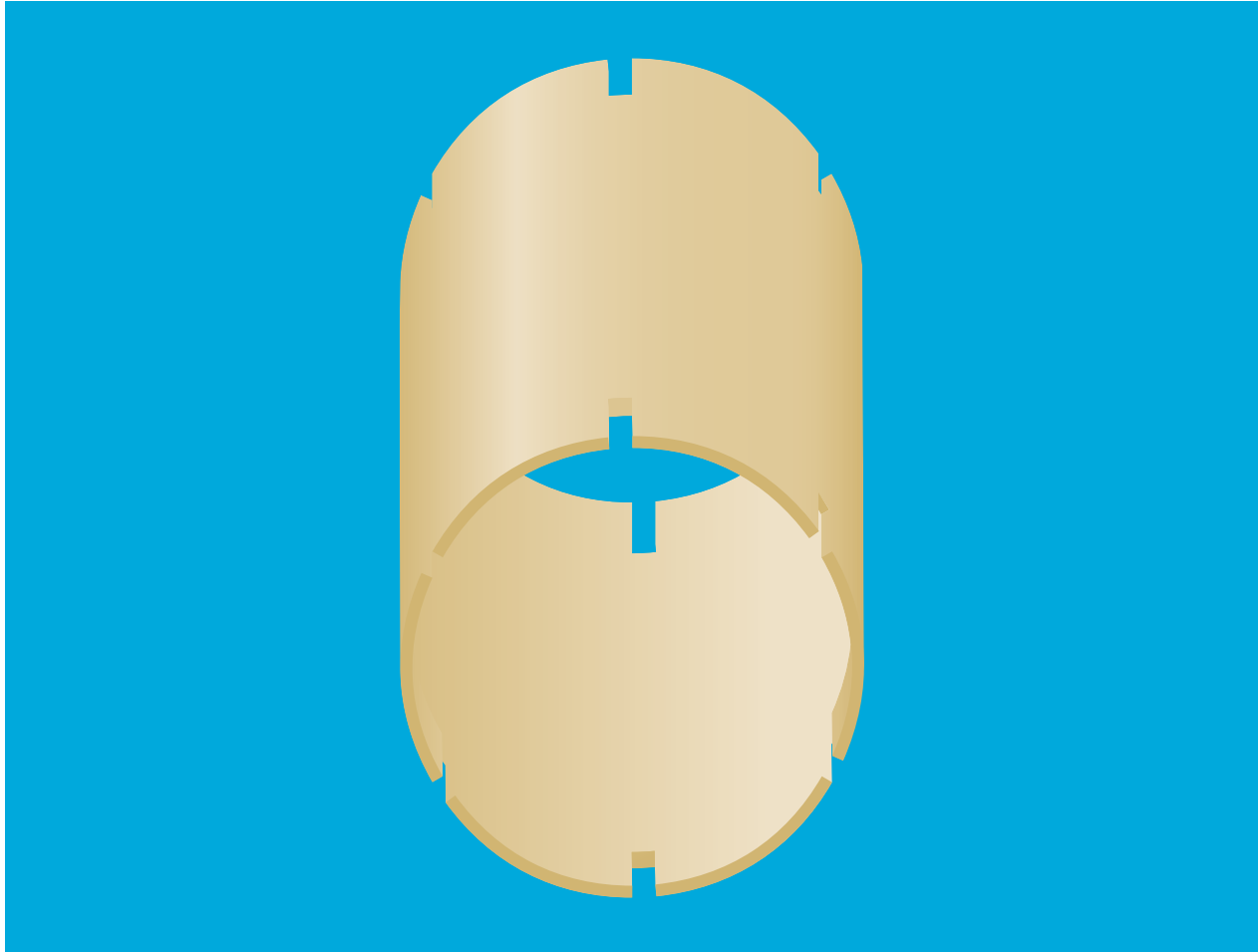


iglide® piston rings product finder

Material selection and individual dimensions made easy.

With just a few clicks, the piston ring finder can find the optimum iglide® material and select the appropriate dimensions from the standard catalogue range in order to define a piston ring in a customized width.



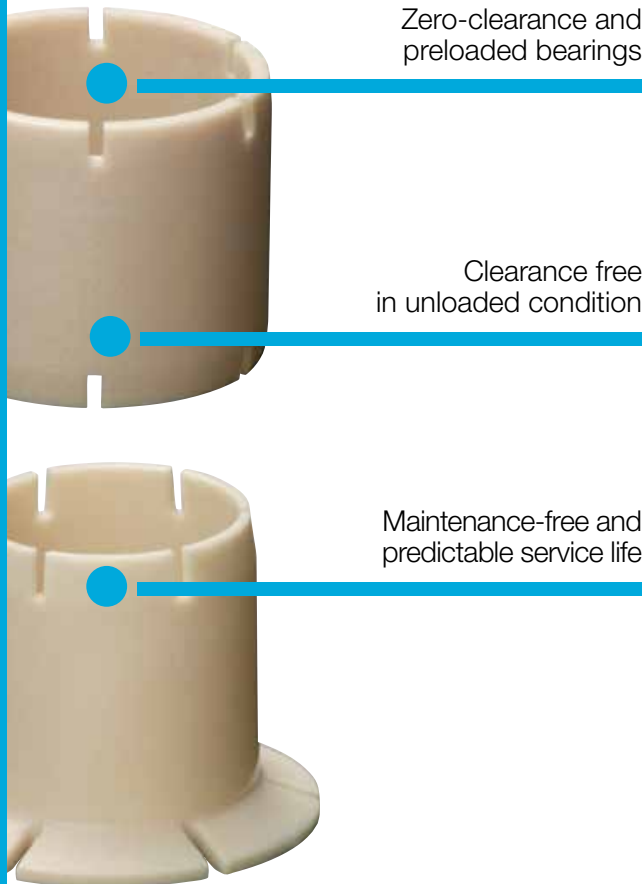


iglide® JV Preloaded Bearings

- Radial and axial preload of bearings
- Clearance-free in unloaded condition
- iglide® J material
- Maintenance-free
- Predictable service life

iglide® JV - Advantages

Zero-clearance and rattle free – preloaded iglide® J bearings



Zero-clearance and
preloaded bearings

Clearance free
in unloaded condition

Maintenance-free and
predictable service life

iglide® – zero-clearance and preloaded bearings

iglide® JVSM and JVFM bearings are clearance-free in unloaded condition due to the axial and/or radial preload. The iglide® J material possesses extremely low coefficients of friction in dry operation and a very low stick-slip effect. Ideal for anti-vibration mounting of pedal box bearings, etc.



When to use it?

- When a radial and/or axial preload of bearings is required
- When a rattle free bearing in the unloaded state is required
- When you need a zero clearance feel



When not to use it?

- When a bearing solution with reduced clearance is needed
 - please contact us
- When the preload has to withstand high radial forces
- When total zero clearance feature is required at high loads



max. +194°F
min. -58°F



Material:
iglide® J ➤ Page 115



2 types
Ø 6–20 mm
more dimensions on request



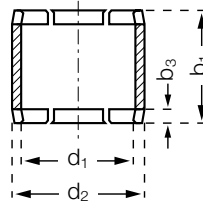
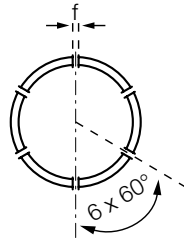
Ø 3/8 to 1 inches



Available from stock
Detailed information about delivery time online.

iglide® JV - Technical data

Preloaded sleeve bearings - Inch



Order key

Type	Dimensions
J V S I -06 08 -06	
iglide® material	
pre-tensioned	
Sleeve	
Metric	
Inner-Ø d1 [mm]	
Outer-Ø d2 [mm]	
Length b1 [mm]	

Dimensions [mm]

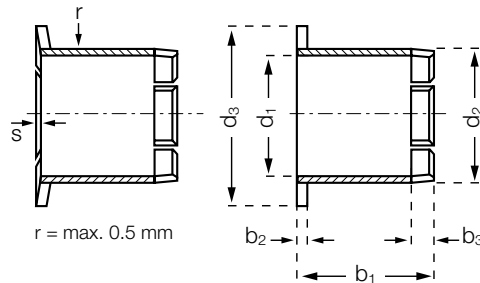
Part No.	d1	d2	b1 h13	b3	f	d1-Tolerance (E10)	
						Max.	Min.
JVSI-0608-06	3/8	1/2	3/8	0.079	0.3773	0.3750	6.020
JVSI-0810-08	1/2	5/8	1/2	0.079	0.5040	0.5013	8.025
JVSI-1012-10	5/8	3/4	5/8	0.098	0.6297	0.6270	10.025
JVSI-1214-12	3/4	7/8	3/4	0.098	0.7541	0.7505	12.032
JVSI-1618-16	1	1 1/8	1	0.098	1.0041	1.0007	14.032

¹⁴⁾ d1 – Measured after pressfit in housing bore. d2 H7 within the measurement plane

iglide®
JV

iglide® JV - Product range

Preloaded flange bearings - Inch



Order key

Type		Dimensions		
J V F I		-06 08-06		
iglide® material	pre-tensioned	Type	Metric	Inner-Ø d1 [mm]
				Outer-Ø d2 [mm]
				Length b1 [mm]

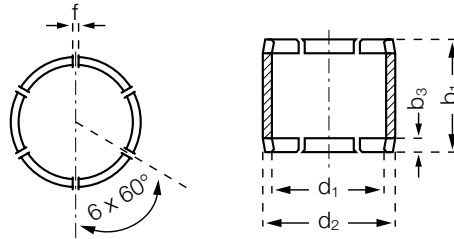
Dimensions [mm]

Part Number	d1	d2	d3	b1	b2	b3	d1 Tolerance	
							Max.	Min.
JVFI-0608-06	3/8	1/2	0.625	3/8	0.062	0.079	0.3773	0.3750
JVFI-0810-08	1/2	5/8	0.875	1/2	0.062	0.079	0.5040	0.5013
JVFI-1012-10	5/8	3/4	1.000	5/8	0.062	0.098	0.6297	0.6270
JVFI-1214-12	3/4	7/8	1.125	3/4	0.062	0.098	0.7541	0.7505
JVFI-1618-16	1	1 1/8	1.375	1	0.062	0.098	1.0041	1.0007

iglide® JV - Product range

Preloaded sleeve bearings - metric

iglide®
JV



Order key

Type	Dimensions
J V S M -06 08 -06	
iglide® material	
pre-tensioned	
Type	
Metric	
Inner-Ø d1 [mm]	
Outer-Ø d2 [mm]	
Length b1 [mm]	

Dimensions [mm]

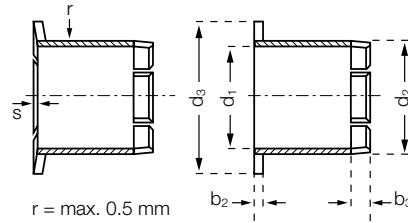
Part No.	d1	d2	b1	b3	f	d1-Tolerance (E10)	
						Max.	Min.
JVSM-0608-06	6	8	6	2.0	1	6.068	6.020
JVSM-0810-08	8	10	8	2.0	1	8.083	8.025
JVSM-1012-10	10	12	10	2.0	1	10.083	10.025
JVSM-1214-12	12	14	12	2.0	1	12.102	12.032
JVSM-1416-14	14	16	14	2.0	1	14.102	14.032
JVSM-1517-15	15	17	15	2.5	1	15.102	15.032
JVSM-1820-18	18	20	18	2.5	1	18.102	18.032
JVSM-2023-20	20	23	20	2.5	1	20.140	20.040

¹⁴⁾ d1 – Measured after pressfit in housing bore. d2 H7 within the measurement plane

iglide®
JV

iglide® JV - Product range

Preloaded flange bearings - Metric



Order key

Type

Dimensions

J V F M-06 08-06

iglide® material

pre-tensioned

Type

Metric

Inner-Ø d1 [mm]

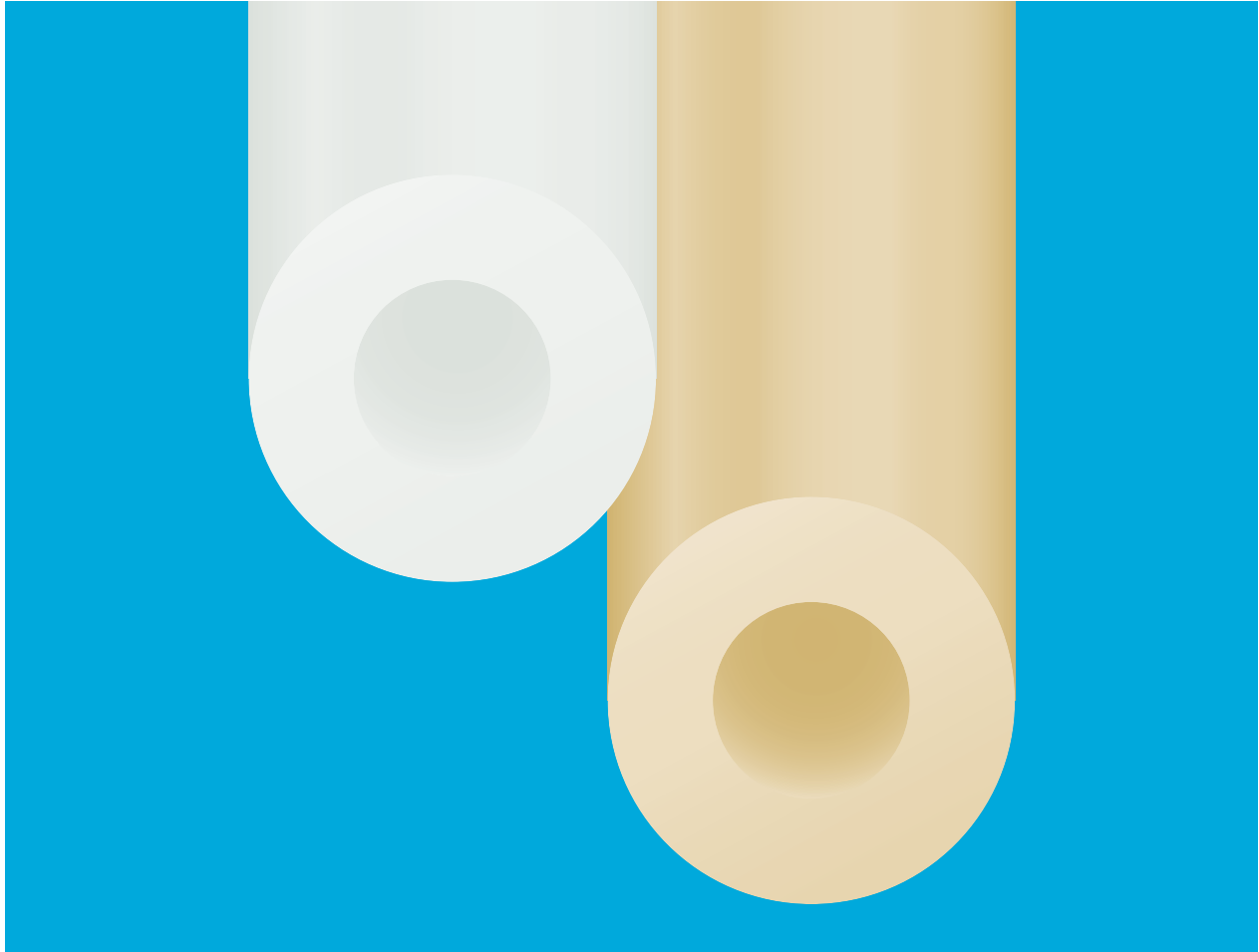
Outer-Ø d2 [mm]

Length b1 [mm]

Dimensions [mm]

Part No.	d1	d2	d3	b1	b2	b3	s	d1-Tolerance (E10)	
								Max.	Min.
JVFM-0810-10	8	10	15	10	1	2.0	0.44	8.083	8.025
JVFM-1012-10	10	12	18	10	1	2.0	0.53	10.083	10.025
JVFM-1214-12	12	14	20	12	1	2.0	0.53	12.102	12.032
JVFM-1416-12	14	16	22	12	1	2.0	0.53	14.102	14.032
JVFM-1517-15	15	17	23	15	1	2.5	0.53	15.102	15.032
JVFM-1820-11	18	20	26	11	1	2.5	0.53	18.102	18.032
JVFM-1820-18	18	20	26	18	1	2.5	0.53	18.102	18.032
JVFM-2023-20	20	23	30	20	1.5	2.5	0.62	20.140	20.040

¹⁴⁾ d1 – Measured after pressfit in housing bore. d2 H7 within the measurement plane

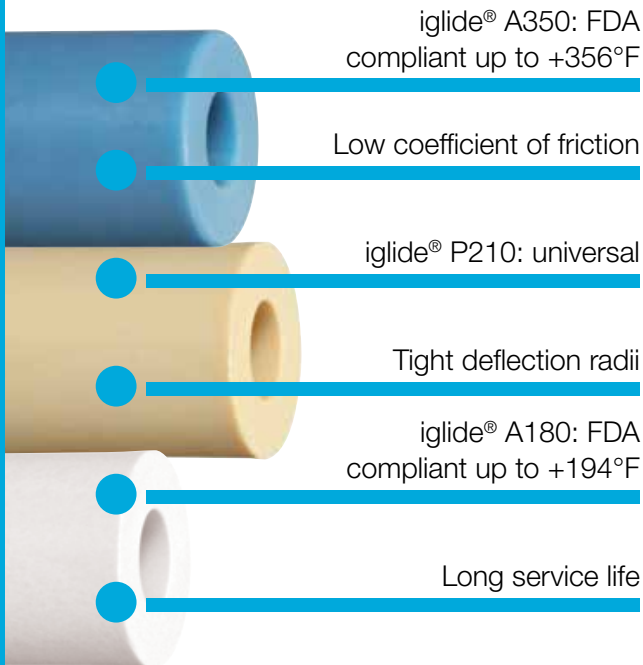


iglide[®] Knife Edge Rollers

- 100% self-lubricating
- Low coefficient of friction
- Tight deflection radii
- Long service life of the belt
- Economic
- Long service life

iglide® Knife edge rollers - Advantages

Self-lubricating and precise deflection of conveyor belts



iglide® knife edge rollers

igus® has developed its own knife-edge rollers to deflect conveyor belts in materials handling applications. The iglide® solution is characterized by tight deflection radii and a low level of required drive power.



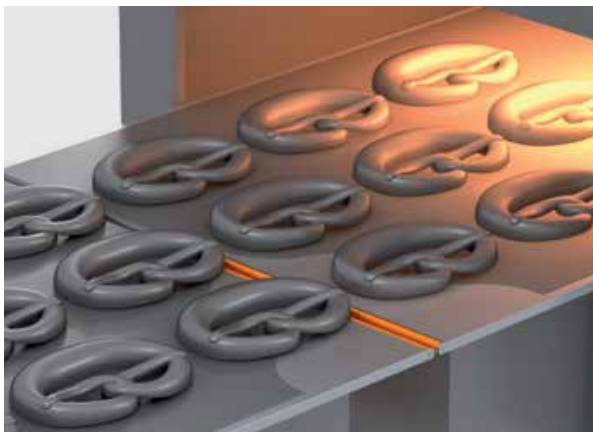
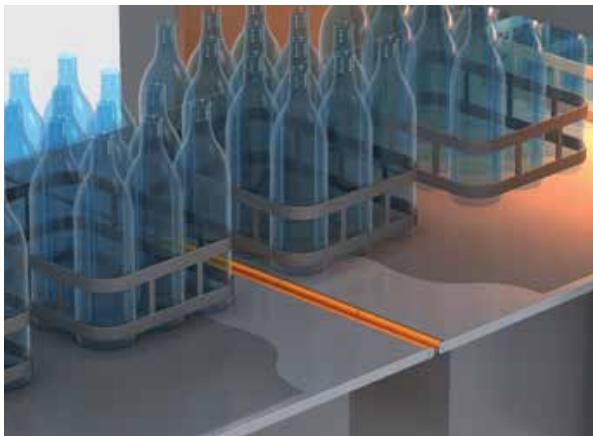
When to use it?

- When a maintenance free conveyor belt is required
- When a precise guiding is required
- When a cost-effective and economical solution is required



When not to use it?

- When high speeds occur
- When high forces are applied on the belts
- When a static knife edge is required



Depending on material:

iglide® A180:	-58°F up to +194°F
iglide® A350:	-148°F up to +356°F
iglide® P210:	-40°F up to +266°F



3 Materials

Ø 3–10 mm ID, 9–20 mm OD
more dimensions on request

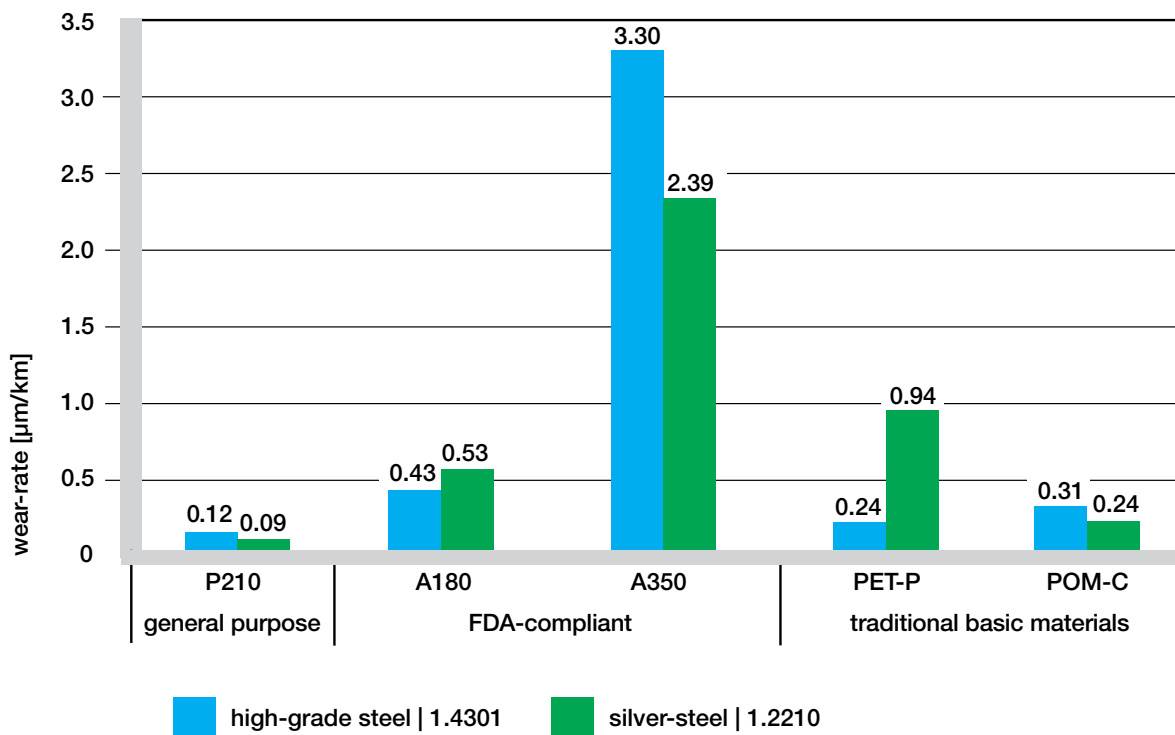


Available from stock

Detailed information about delivery time online.

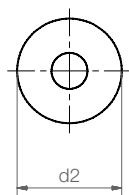
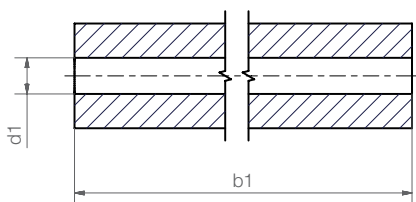
iglide® Knife edge rollers - Technical data

Material properties table				
General properties	Unit	iglide® P210	iglide® A180	iglide® A350
Density	g/cm ³	1.40	1.46	1.42
Color		yellow	white	blue
Max. moisture absorption at +73°F/50% r.h.	% weight	0.3	0.2	0.6
Max. water absorption	% weight	0.5	1.3	1.9
Coefficient of sliding friction, dynamic against steel	μ	0.07–0.19	0.05–0.23	0.10–0.20
PV value, max. (dry)	psi · ft/min	11,500	8,750	11,500
Mechanical properties				
Modulus of elasticity	psi	362,594	333,600	290,075
Tensile strength at +68°F	psi	10,150	12,760	15,950
Compressive strength	psi	7,250	11,310	11,312
Max. recommended surface pressure (+68°F)	psi	7,250	4,060	8,700
Shore-D Hardness		75	76	76
Physical and thermal properties				
Max. long term application temperature	°F	+212	+194	+356
Max. short term application temperature	°F	+320	+230	+410
Min. application temperature	°F	-40	-58	-148
Thermal conductivity	W/m · K	0.25	0.25	0.24
Coefficient of thermal expansion (at +73°F)	K ⁻¹ · 10 ⁻⁵	8	11	8
Electrical properties				
Specific volume resistance	Ωcm	> 10 ¹²	> 10 ¹²	> 10 ¹¹
Surface resistance	Ω	> 10 ¹¹	> 10 ¹¹	> 10 ¹¹



iglide®
knife edge
rollers

iglide® Knife edge rollers - Product range



Options:
 iglide® material
A180 = iglide® A180
A350 = iglide® A350
P210 = iglide® P210



Order key

Type Dimensions

A180 RL M - 03 09 - 50

iglide® material	Roller	Metric	Inner-Ø d1 [mm]	Outer-Ø d2 [mm]	Length b1 [mm]
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Knife edge rollers made from iglide® A180 – FDA compliant, up to 194°F

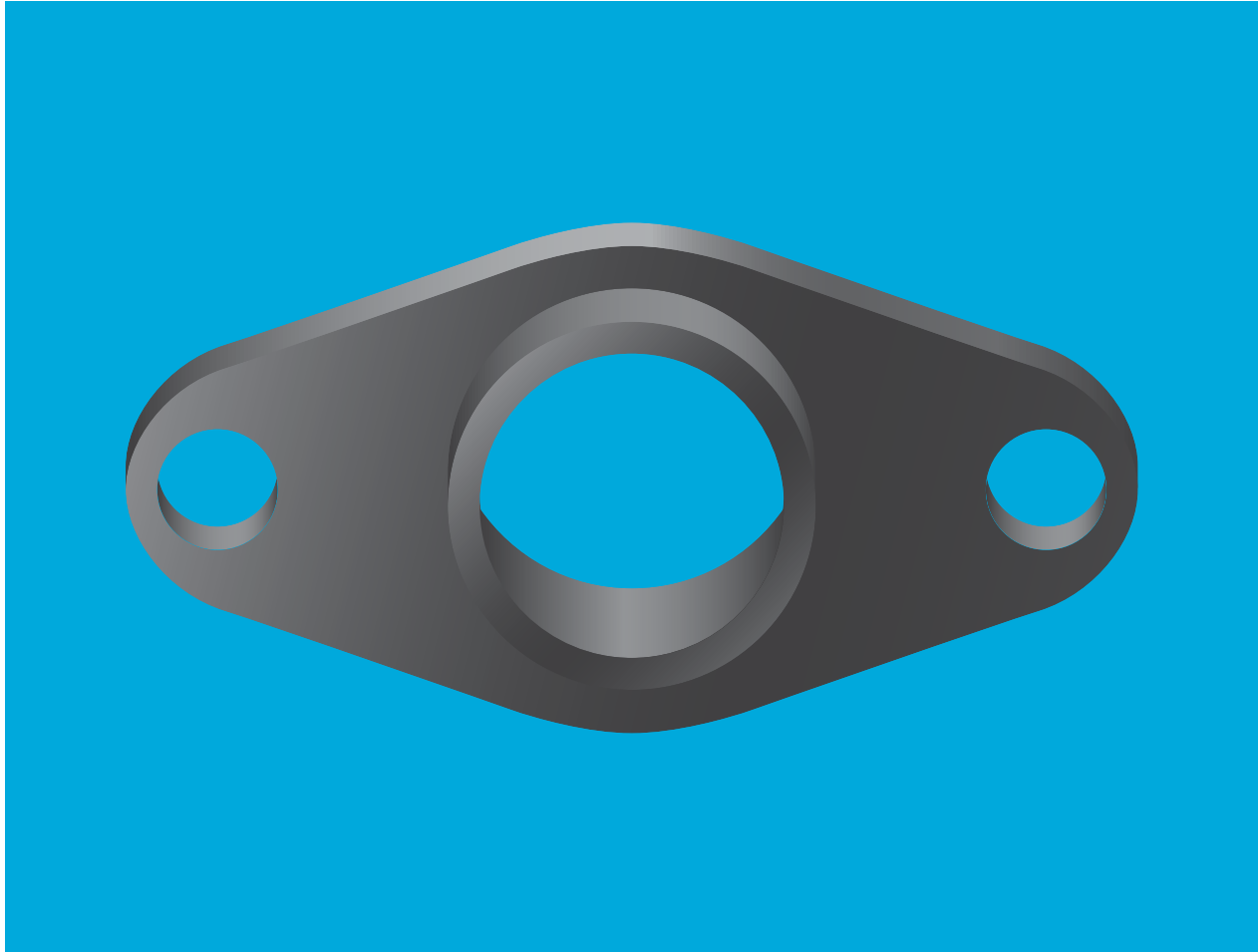
Part No.	d1 +0.1 [mm]	d2 ±0.1 [mm]	b1 -0.3 [mm]
A180RLM-0309-50	3.1	9.0	50.0
A180RLM-0409-50	4.1	9.0	50.0
A180RLM-0511-70	5.1	11.0	70.0
A180RLM-0514-70	5.1	14.0	70.0
A180RLM-0612-70	6.1	12.0	70.0
A180RLM-0614-70	6.1	14.0	70.0
A180RLM-0812-70	8.1	12.0	70.0
A180RLM-0814-70	8.1	14.0	70.0
A180RLM-0818-70	8.1	18.0	70.0
A180RLM-1020-70	10.1	20.0	70.0

Knife edge rollers made from iglide® A350 – FDA compliant, up to 356°F

Part No.	d1 +0.1 [mm]	d2 ±0.1 [mm]	b1 -0.3 [mm]
A350RLM-0309-50	3.1	9.0	50.0
A350RLM-0614-70	6.1	14.0	70.0
A350RLM-0818-70	8.1	18.0	70.0

Knife edge rollers made from iglide® P210 – Universal, up to 212°F

Part No.	d1 +0.1 [mm]	d2 ±0.1 [mm]	b1 -0.3 [mm]
P210RLM-0309-50	3.1	9.0	50.0
P210RLM-0409-50	4.1	9.0	50.0
P210RLM-0511-70	5.1	11.0	70.0
P210RLM-0514-70	5.1	14.0	70.0
P210RLM-0612-70	6.1	12.0	70.0
P210RLM-0614-70	6.1	14.0	70.0
P210RLM-0812-70	8.1	12.0	70.0
P210RLM-0814-70	8.1	14.0	70.0
P210RLM-0816-77	8.1	16.0	77.0
P210RLM-0818-70	8.1	18.0	70.0
P210RLM-1020-70	10.1	20.0	70.0



iglide® Flange Bearings

- Excellent wear resistance
- Maintenance-free dry running
- Lightweight
- Available in 4 iglide® materials
- Standard range from stock

iglide® Flange bearings - Advantages

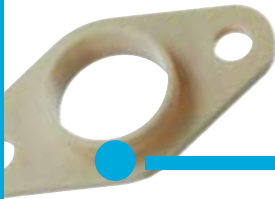
Maintenance free dry running



iglide® G300:
Standard material for
many applications



iglide® T500 (X)*:
Material for high
temperature applications



iglide® J:
Material for low wear



iglide® A180:
Material for use in
the food sector

iglide® maintenance-free flange bearings

With this design it is possible to use iglide® high performance plain bearings in locations where recommended housing bore tolerances are not possible. Due to the design of the bearing, high loads are possible although there is a minimal precision requirement of the housing.

- Very good wear resistance
- Low weight
- Self-lubricating

Installation

For low radial loads, it is sufficient to mount iglide® flange bearings on one surface simply with two bolts. For higher radial loads, it is advisable to support the iglide® flange bearing in a hole. For this hole, large tolerances are permitted, since it serves only as additional support for the iglide® flange bearing. In order to achieve higher radial loads in the bearings, the iglide® flange bearing can be pressfit into a recommended housing bore with H7 tolerances. The additional bolts ensure the fit of the bearing in the housing.



Depending on material:

iglide® G300:	-40°F up to	+266°F
iglide® A180:	-58°F up to	+194°F
iglide® J:	-58°F up to	+194°F
iglide® T500 (X)*:	-148°F up to	+482°F



Material properties:

iglide® G300	➤ Page 83
iglide® A180	➤ Page 423
iglide® J	➤ Page 115
iglide® T500 (X)*	➤ Page 193



4 materials
Ø 10–35 mm

more dimensions on request



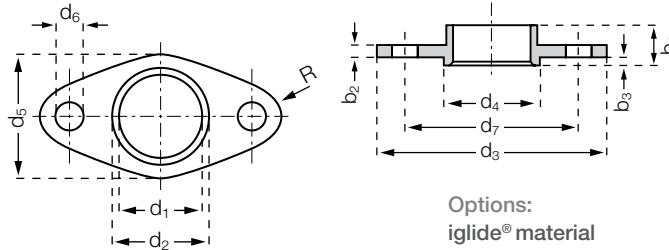
Available from stock

Detailed information about delivery time online.

*European part numbers for the high temperature material begin with X. Example XFL-...

iglide® Flange bearings - Technical data

Flange bearings



Options:

iglide® material

G = iglide® G300

A180 = iglide® A180

J = iglide® J

T = iglide® T500 (X)



Order key

Type **G** Size **FL - 10**

G **FL - 10**

iglide® material

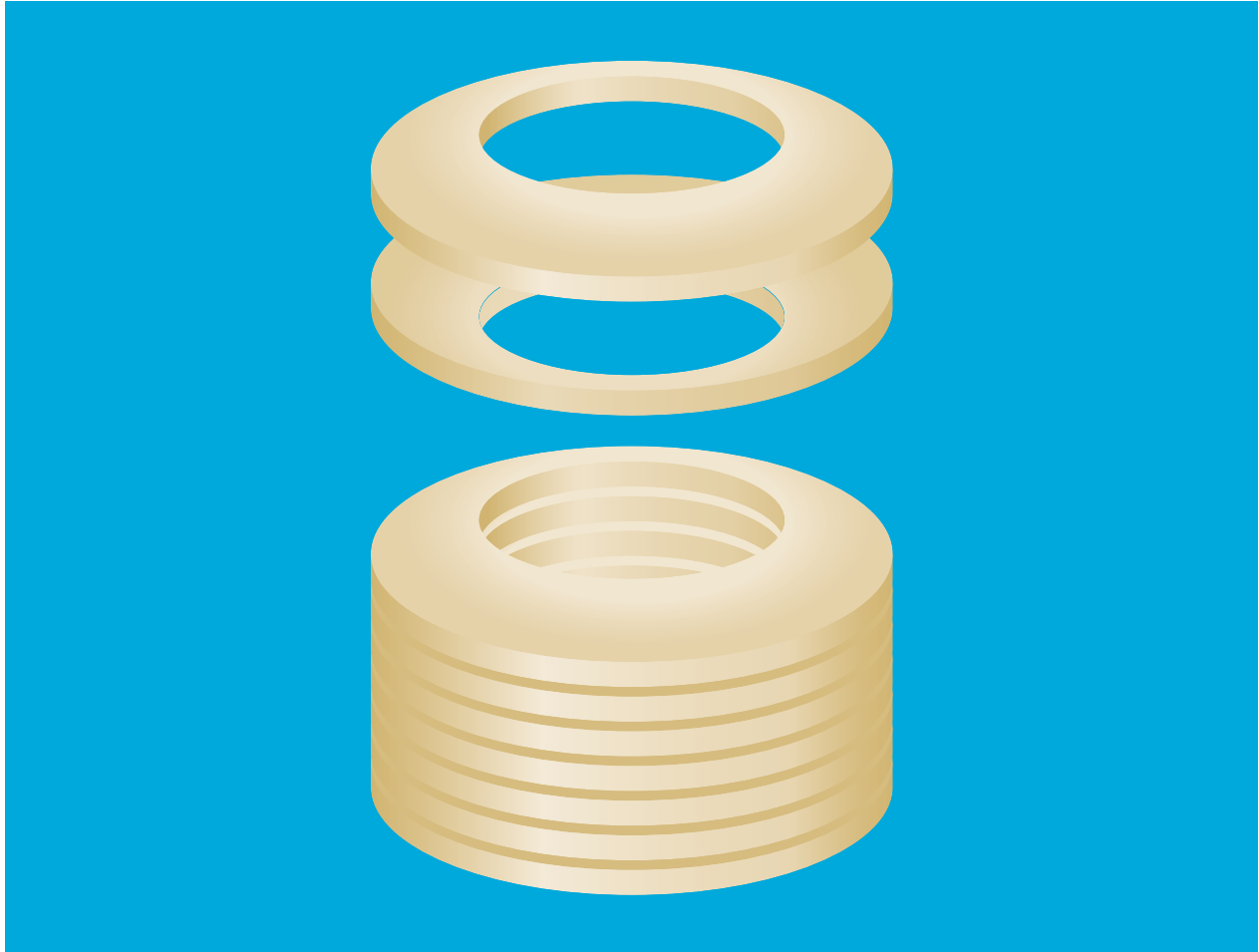
Flange bearings

Inner-Ø [mm]

Dimensions [mm]

Part No.	d1	d1-Tolerance ³⁾	d2 ¹³⁾	d3	d4	d5	d6	d7	b1	b2	b3	R (±0.2)
GFL-10	10	+0.025 +0.083	12	30	14	15	4.5	22	6	2	1	4
GFL-12	12	+0.032 +0.102	14	36	16	18	4.5	26	6	2	1	4.5
GFL-14	14	+0.032 +0.102	16	42	18	21	5.5	30	6	2	1	5
GFL-16	16	+0.032 +0.102	18	48	20	24	5.5	34	6	2	1	5.5
GFL-18	18	+0.032 +0.102	20	54	22	27	6.5	39	6	2	1	7
GFL-20	20	+0.040 +0.124	23	60	26	30	6.5	44	10	3	2	7
GFL-25	25	+0.040 +0.124	28	75	30	35	6.5	55	10	3	2	8.5
GFL-30	30	+0.040 +0.124	34	90	36	40	8.5	66	10	3	2	10
GFL-35	35	+0.050 +0.150	39	95	41	55	8.5	77	10	3	2	12
A180FL-10	10	+0.025 +0.083	12	30	14	15	4.5	22	6	2	1	4
A180FL-12	12	+0.032 +0.102	14	36	16	18	4.5	26	6	2	1	4.5
A180FL-16	16	+0.032 +0.102	18	48	20	24	5.5	34	6	2	1	5.5
A180FL-20	20	+0.040 +0.124	23	60	26	30	6.5	44	10	3	2	7
A180FL-25	25	+0.040 +0.124	28	75	30	35	6.5	55	10	3	2	8.5
A180FL-30	30	+0.040 +0.124	34	90	36	40	8.5	66	10	3	2	10
A180FL-35	35	+0.050 +0.150	39	95	41	55	8.5	77	10	3	2	12
JFL-10	10	+0.025 +0.083	12	30	14	15	4.5	22	6	2	1	4
JFL-12	12	+0.032 +0.102	14	36	16	18	4.5	26	6	2	1	4.5
JFL-14	14	+0.032 +0.102	16	42	18	21	5.5	30	6	2	1	5
JFL-16	16	+0.032 +0.102	18	48	20	24	5.5	34	6	2	1	5.5
JFL-20	20	+0.040 +0.124	23	60	26	30	6.5	44	10	3	2	7
JFL-25	25	+0.040 +0.124	28	75	30	35	6.5	55	10	3	2	8.5
JFL-30	30	+0.040 +0.124	34	90	36	40	8.5	66	10	3	2	10
JFL-35	35	+0.050 +0.150	39	95	41	55	8.5	77	10	3	2	12
TFL-10	10	+0.013 +0.071	12	30	14	15	4.5	22	6	2	1	4
TFL-12	12	+0.016 +0.086	14	36	16	18	4.5	26	6	2	1	4.5
TFL-14	14	+0.016 +0.086	16	42	18	21	5.5	30	6	2	1	5
TFL-16	16	+0.016 +0.086	18	48	20	24	5.5	34	6	2	1	5.5
TFL-20	20	+0.020 +0.104	23	60	26	30	6.5	44	10	3	2	7
TFL-25	25	+0.020 +0.104	28	75	30	35	6.5	55	10	3	2	8.5
TFL-30	30	+0.020 +0.104	34	90	36	40	8.5	66	10	3	2	10
TFL-35	35	+0.025 +0.125	39	95	41	55	8.5	77	10	3	2	12

³⁾ after pressfit. Testing methods ► Page 76 ¹³⁾ pressfit in H7 tolerance housing bore

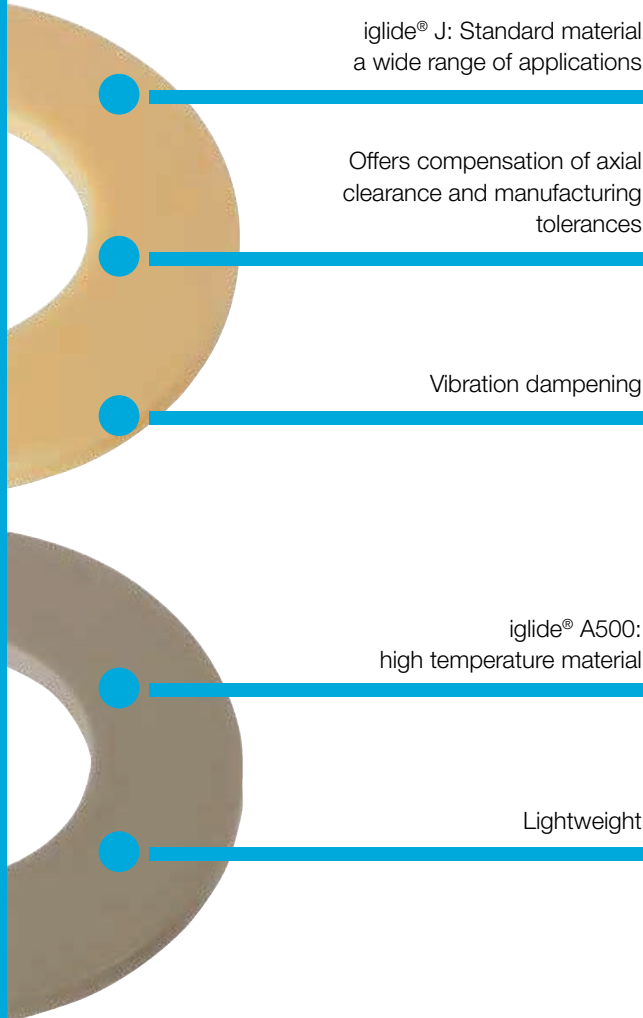


iglide[®] Polysorb - Polymer Disc Springs

- Compensation for axial clearances and manufacturing tolerances
- Vibration dampening
- Noise dampening
- Corrosion resistant
- Lightweight
- Electrical and thermal insulation

iglide® Polysorb - Advantages

Cushion and dampen: plastic disc springs



iglide® J: Standard material
a wide range of applications

Offers compensation of axial
clearance and manufacturing
tolerances

Vibration dampening

iglide® A500:
high temperature material

Lightweight

Polysorb - plastic disc springs

Spring washers are axially concave discs, meant to be axially loaded for compensation of axial clearances and manufacturing tolerances. Polysorb disc springs require less space than other spring options, and are especially suitable for applications that do not require a high spring length.



When to use it?

- When an application requires spring characteristics typically only possible with metal at a considerable price
- For compensation of axial clearances and manufacturing tolerances
- For vibration dampening
- For noise reduction
- When a non-magnetic material is required
- For electrical and thermal insulation



When not to use it?

- When constant spring forces are necessary over a wide temperature range
- When high spring forces are required



Depending on material:

iglide® J: -58°F up to +194°F
iglide® A500: -148°F up to +482°F



Material properties:

iglide® J ➤ Page 115
iglide® A500 ➤ Page 459



2 materials
Ø 5–20 mm

more dimensions on request



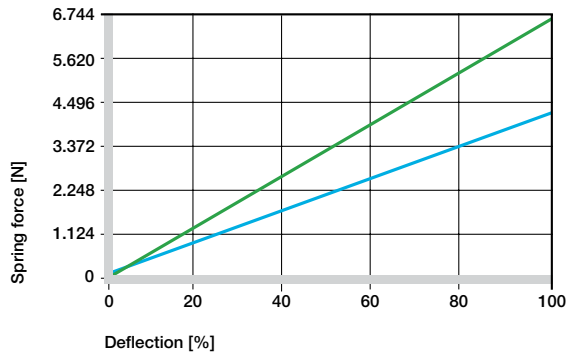
Available from stock

Detailed information about delivery time online.

iglide® Polysorb - Technical data

General properties

The spring deflection of Polysorb is relatively small, therefore, a number of disc springs can be combined. Alternately stacked Polysorb springs increase the spring length proportionally to the number of springs in use, with the total spring force equaling the force of a single disc spring. To increase the force, disc springs can be stacked in parallel to form a spring packet.



■ JTEM-10 ■ A500TEM-10

Percent of deflection based on the spring force of size 10 Polysorb discs

Chemical resistance

Polysorb disc springs are resistant to a variety of chemicals. For higher resistance, iglide® A500 material discs should be used.

Medium	Resistance	
	iglide® J	iglide® A500
Alcohols	+	+
Hydrocarbons	+	+
Greases, oils without additives	+	+
Fuels	+	+
Diluted acids	0 to -	+
Strong acids	-	+
Diluted alkalines	+	+
Strong alkalines	+ to 0	+

+ resistant 0 conditionally resistant - not resistant

All data given at room temperature [+68°F]

Table 01: Chemical resistance

Moisture absorption

Low moisture absorption allows for Polysorb to be used in wet or humid environments. The disc springs absorb moisture, changing mechanical properties of the disc in the process. However, even in long term use in water, Polysorb disc springs maintain a high spring force.

iglide®	Standard environment 68°F/50% r.h.	Saturated in water
J	18	15
A500	24	23

Table 02: Spring force [N] as a function of the absorbed moisture

Increased temperatures

Increased temperatures reduce the rigidity of plastic materials. Polysorb disc springs made of standard iglide® J maintain a maximum spring force of 1.8 lbs at the maximum permissible temperature of 194°F. Compare spring force with ambient temperature in diagram 02.

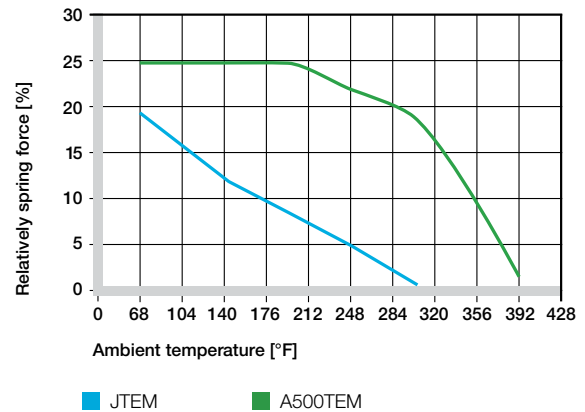


Diagram 02: Effect of ambient temperature on the spring force

iglide®
polysorb

iglide® Polysorb - Product range

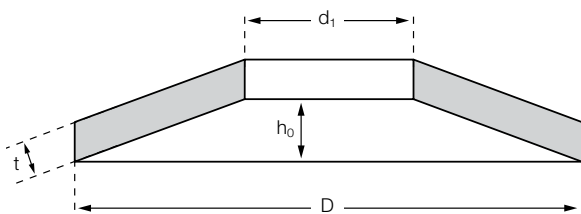
Polysorb disc springs



iglide® J



iglide® A500



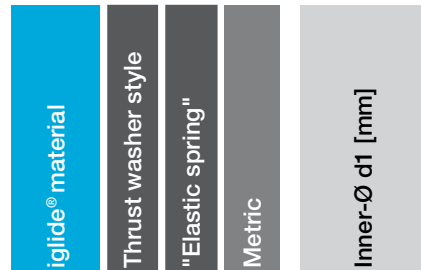
Dimensions based on DIN 2093


Material:
 iglide® J ► Page 115
 iglide® A500 ► Page 459

Order key

Type

Dimensions

 T E M - 05


Material options:

iglide® J for low wear

 iglide® A500 for FDA-compliant high
 temperature applications

Dimensions [mm]

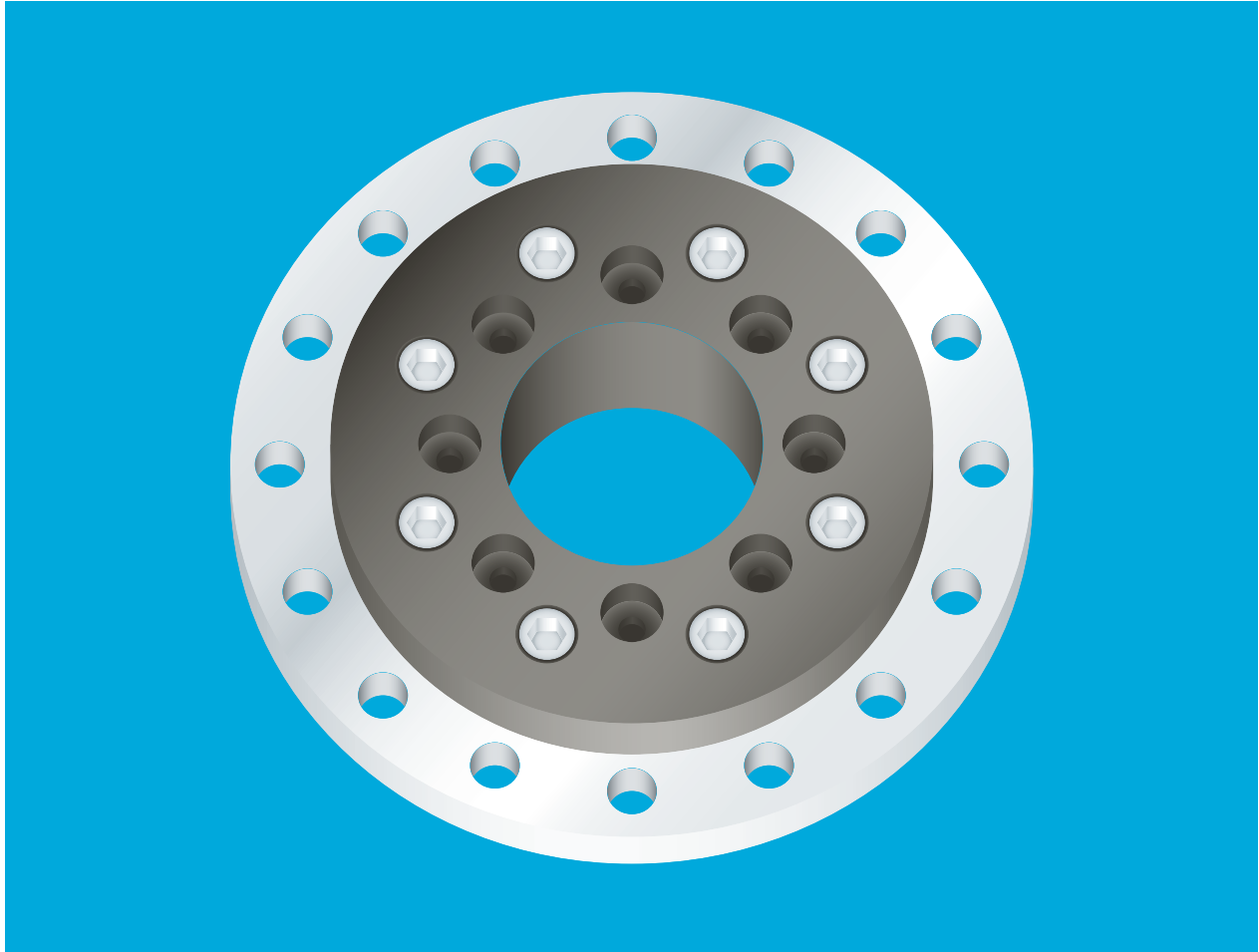
Part No. ¹⁵⁾	D	d1	t	h ₀	Standard values: spring lengths and forces	
					F _{1,0} iglide® J [N]	F _{1,0} iglide® A500 [N]
 TEM-05	10.0	5.2	0.5	0.25	5	7
 TEM-06	12.5	6.2	0.7	0.30	10	14
 TEM-08	16.0	8.2	0.9	0.35	15	18
 TEM-10	20.0	10.2	1.1	0.45	18	24
 TEM-12	25.0	12.2	1.5	0.55	40	55
 TEM-16	31.5	16.3	1.75	0.70	70	80
 TEM-20	40.0	20.4	2.25	0.90	130	140

The standard values for the spring lengths and forces are rounded mean values.

¹⁵⁾ Material: iglide® J, JTEM, Standard
 iglide® A500, A500TEM, high temperature and chemical resistance

Symbols and units:

F	=	Force [N]
D	=	Outer diameter [mm]
d1	=	Inner diameter [mm]
t	=	Plate thickness [mm]
h ₀	=	Maximum spring displacement [mm]
F _{1,0}	=	Spring force 100% displacement [N]

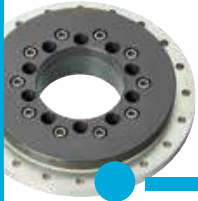


iglide® PRT - Polymer Slewing Rings

- Completely maintenance-free
- Easy installation and replaceable sliding pads
- High wear resistance
- For high load capacity, high rigidity
- Stainless steel versions available
- Wide range of accessories

iglide® PRT - Advantages

Maintenance free slewing ring bearing



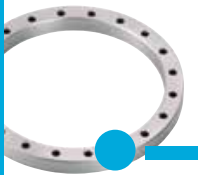
Type 01:
High rigidity
► Page 650



Type 01 with gear teeth:
With outer drive ring
► Page 651



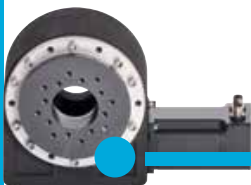
Type 02:
Lightweight
► Page 652



Wide range of accessories:
Special geometries and accessories
► Page 654



Universal sliding pads:
Customize your own slewing ring systems
► Page 656



Robolink D:
PRT with worm gear
► Page 657


PRT - Plastic slewing ring bearing


iglide® PRT is a slewing ring bearing with the proven advantages of the igus® plastic bearings. The sliding pads made of iglide® high-performance plastics are completely self-lubricating and maintenance-free. Anodized aluminum or stainless steel housing surfaces mate with iglide® sliding pads. All fixing screws are made of stainless steel.


- Completely maintenance free
- Easy installation; replaceable sliding pads
- High wear resistance
- For high load capacity, high rigidity
- Stainless steel versions available
- Wide range of accessories available


Typical industries and applications


- Conveyors ● Automation
- Assembly stations ● Stage and lighting technology
- Renewable energy, etc

 **Service life calculation**
► www.igus.com/prt-expert

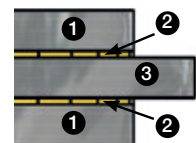
 **Max. +356°F**
min. -58°F

 **3 types**
Ø 20–300 mm

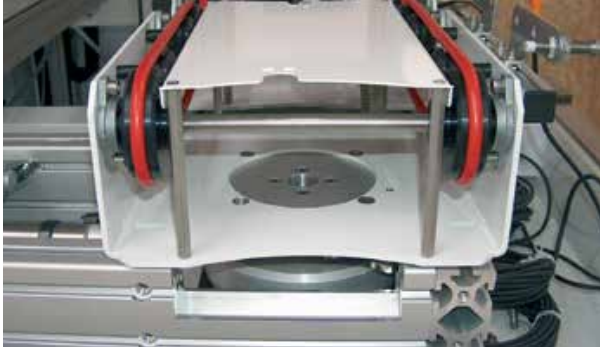
 **Available from stock**
Stainless steel version on request
Detailed information about delivery time online.

 **Slewing ring bearings structure**

- 1 **Type 01:** Hard anodized aluminum, or 316 stainless steel
- 2 **Type 02:** iglide® J4 or A180
- 3 **Type 01:** iglide® J or H1
- 3 **Type 01 and 02:** anodized aluminum, or 316 stainless steel



iglide® PRT - Application examples



iglide® PRT-01-60 is used here in a handling/transport system for semiconductor carriers. Through a cylinder control, the PRT plastic slewing ring bearing provides a deflection at the end of the system's track.



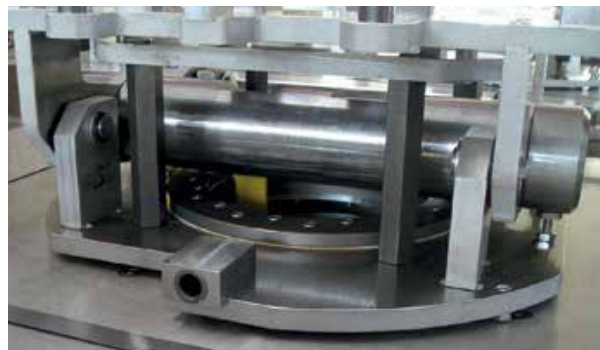
A light and self-lubricating iglide® PRT slewing ring bearing is used in a self-rotating light, as found in discos for example.



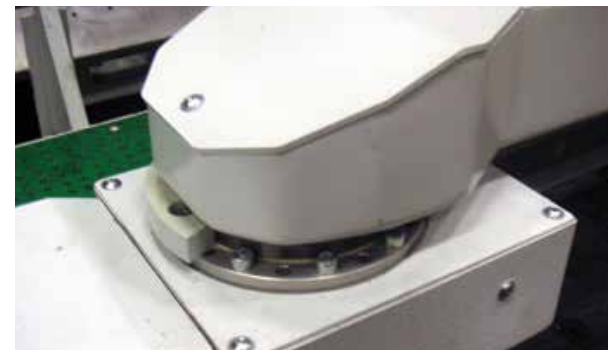
In this machine tool control panel, an iglide® plastic slewing ring bearing is used due to its freedom from external lubrication and maintenance.



The iglide® PRT-01-100 slewing ring bearing is used in an automatic welding plant in this application. It enables pivoting in the horizontal plane of the clamping device.



The self-lubricating iglide® PRT slewing ring bearing masters this job brilliantly, is lighter and in terms of purchasing is cheaper than a comparable metal rotary connector.



Self-lubricating and maintenance-free plastic slewing ring bearings for moving the control panel. The low coefficients of friction ensure low actuating force during pivoting.

iglide® PRT - Technical data

Slewing ring bearings general properties

Type 01

Properties	Unit	-20	-30	-50	-60	-100	-150	-200	-300
Weight	kg	0.2	0.4	1.0	1.1	1.3	2.2	3.2	7.6
Axial load, static	N	15,000	27,000	40,000	50,000	55,000	80,000	100,000	150,000
Axial load, dynamic	N	4,000	7,000	10,000	15,000	16,000	25,000	30,000	90,000
Radial load, static	N	2,300	5,000	8,000	10,000	16,000	25,000	35,000	45,000
Radial load, dynamic	N	600	1,500	2,500	3,000	5,000	8,000	10,000	27,000
Rotat. speed dry running	1/min	300	250	200	200	150	100	80	50
Max. perm. tilting moment	Nm	100	200	600	800	1,500	2,000	3,800	5,000

Type 02

Properties	Unit	-20-AL /-20-ES	-20-LC	-20-P	-30	-50	-60
Weight	kg	0.1	0.1	72	0.2	0.44	0.7
Axial load, static	N	13,000	13,000	13000	25,000	35,000	45,000
Axial load, dynamic	N	4,000	4,000	4000	7,000	4,000	12,000
Radial load, static	N	2,000	2,000	2000	2,500	5,000	10,000
Radial load, dynamic	N	500	500	500	700	1,200	2,800
Rotat. speed dry running	1/min	250	250	250	200	120	120
Max. perm. tilting moment	Nm	60	40	40	100	120	200



igus® online tool: Slewing ring bearing configurator

The most common criteria for selecting an iglide® PRT slewing ring bearing are firstly, the loads and torques to be supported, and secondly, the installation space available. Suitable sizes and types are selected based on this data.

► www.igus.com/prt



iglide® PRT - Technical data

Type 01

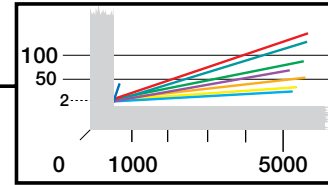
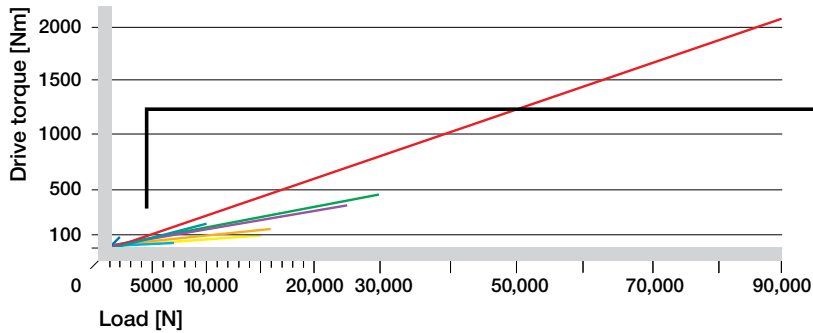


Diagram 01: Required drive torque versus applied moment

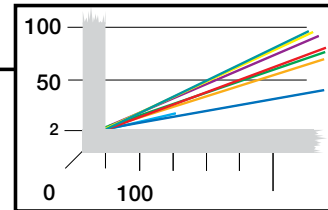
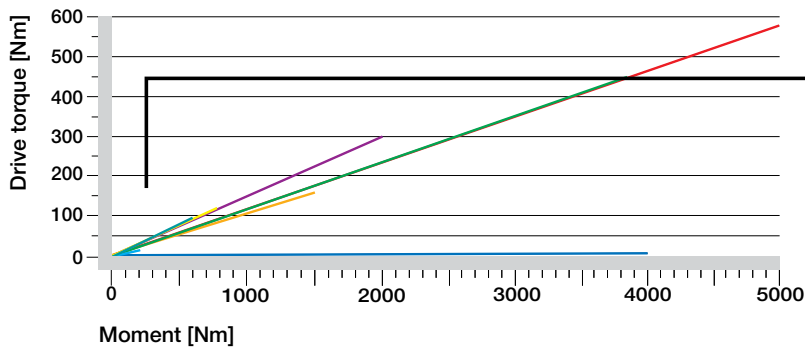


Diagram 02: Required drive torque versus applied moment

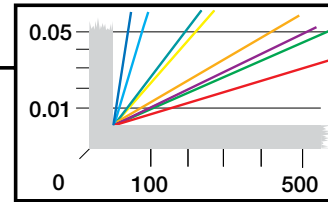
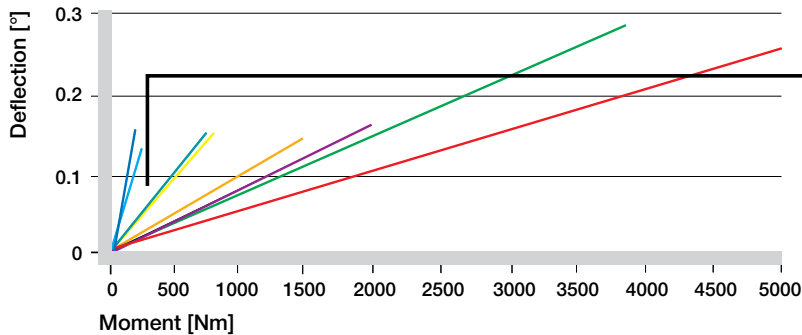


Diagram 03: Deflection versus applied moment

— PRT-01-20	— PRT-01-30	— PRT-01-50	— PRT-01-60	— PRT-01-100	— PRT-01-150	— PRT-01-200	— PRT-01-300
M4, min.	M4, min.	M6, min.	M5, min.	M5, min.	M5, min.	M6, min.	M8, min.
6 screws	8 screws	12 screws	10 screws	12 screws	12 screws	12 screws	12 screws



All load values assume the PRT is assembled with socket head screws (strength class 8.8) on the outside pitch circle diameter. For the assembly (using strength class 8.8 screws) of the PRT, the screws have to be inserted to a minimum thread depth of $2 \times d$ in every hole location in the outer ring. All data can be used for both lateral and horizontal assembly (including overhead installation).

iglide®
PRT

iglide® PRT - Product range

Slewing ring bearing, high rigidity – Type 01



Standard



High temperature
up to +356 °F



Stainless steel version

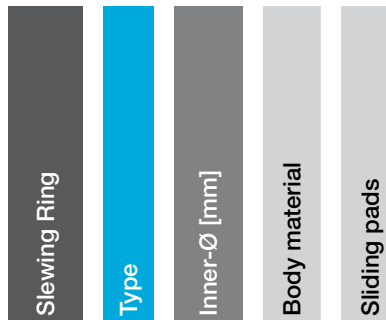


ESD compliant



Order key

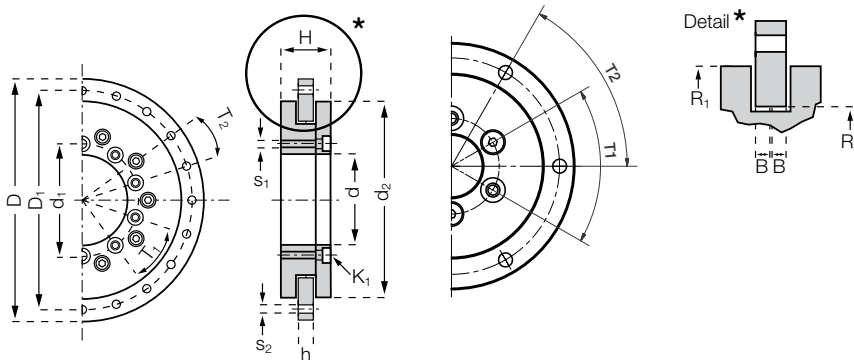
Type Size Options
PRT-01 - 30 - ES - H1



Options:

Body material
Blank: Aluminum
ES: 316 stainless steel
ESR: 303 stainless steel
Sliding pads
Blank: iglide® J
H1: iglide® H1,
High temperature
ESD: iglide® F2,
ESD-compliant

- Aluminum or stainless steel body (on request)
- Replaceable maintenance free sliding pads made from iglide® J (Standard) ► **Page 115**, iglide® H1 (for temperatures up to +356 °F) ► **Page 377**, or iglide® F2 (ESD-compliant) ► **Page 549**



Accessories
► **Page 654**



**All stainless steel
versions on request**

Dimensions [mm]

Part No.	D ¹⁰⁾	D1	d1	d	d2 ±0.2	H	h	T1	T2	S1	S2	K1 for screw	R1	R2	B
PRT-01-20-...	80	70	31	20	60	24	8	6 x 60°	6 x 60°	M4	4.5	DIN 7984 M4	30	20	3.5
PRT-01-30-...	100	91	42.5	30	82	29	10	8 x 45°	8 x 45°	M4	4.5	DIN 7984 M4	41	29	4.5
PRT-01-50-...	150	135	65	50	120	33	10	8 x 45°	16 x 22.5°	M6	6.6	ISO 4762 M6	60	46.5	4.5
PRT-01-60-...	160	145	74	60	130	33	10	10 x 36°	20 x 18°	M5	5.5	ISO 4762 M5	65	51.5	4.5
PRT-01-100-...	185	170	112	100	160	34	12	12 x 30°	16 x 22.5°	M5	5.5	ISO 4762 M5	80	69	5.5
PRT-01-150-...	250	235	165	150	220	35	12	12 x 30°	16 x 22.5°	M5	5.5	ISO 4762 M5	110	96.5	5.5
PRT-01-200-...	300	285	215	200	274	38	15	12 x 30°	16 x 22.5°	M6	6.6	ISO 4762 M6	137	124	7.0
PRT-01-300-...	450	430	320	300	410	42	15	12 x 30°	16 x 22.5°	M8	9.0	DIN 7984 M8	205	186.6	7.0

¹⁰⁾ Tolerance according to DIN ISO 2768 mK

Please add suffix "-H1" for the high temperature version or suffix "-ESD" for ESD-compliant slewing ring bearings

iglide® PRT - Product range

Slewing ring bearing with gear teeth

iglide®
PRT

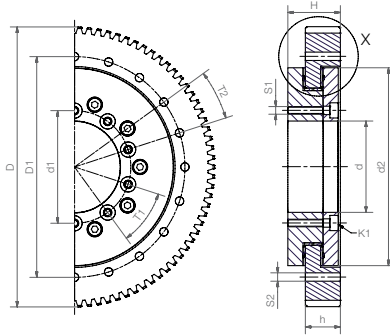


Standard



Stainless steel version

- 4 standards for outer drive rings are available
 - A classic spur gear according to DIN3967
 - Commercially available belt profiles: T10, AT10, HTD8M
- The inner ring is fixed and the outer ring driven
- The outer ring carries the item to be moved
- Outer ring available in stainless steel as an option (suffix "-ES")

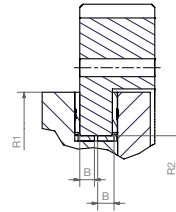


Order key

Type Size Options

PRT- 30 - ... - ES

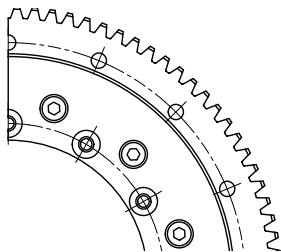
Slewing Ring Inner-Ø [mm] Tooth profile type Stainless steel version



Dimensions [mm]

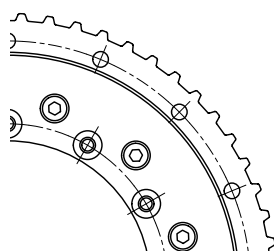
Part No.	D1	d1	d	d2	h	T1	T2	S1	S2	K1	R1	R2	B	H
PRT-20-...	70	31.0	20	60	18	6x60°	6x60°	M4	4.5	DIN 7984 M4	30	20.0	3.5	(26.0)
PRT-30-...	91	42.5	30	82	21	8x45°	8x45°	M4	4.5	ISO 4762 M4	41	29.0	4.5	(30.5)
PRT-60-...	145	74.0	60	130	23	10x36°	20x18°	M5	5.5	ISO 4762 M5	65	51.5	4.5	(34.5)
PRT-100-...	170	112.0	100	160	25	12x30°	16x22.5°	M5	5.5	ISO 4762 M5	80	69.0	5.5	(36.0)
PRT-150-...	235	165.0	150	220	25	12x30°	16x22.5°	M5	5.5	ISO 4762 M5	110	96.5	5.5	(37.5)
PRT-200-...	285	215.0	200	274	30	12x30°	16x22.5°	M6	7.0	ISO 4762 M6	137	124.0	7.0	(41.5)
PRT-300-...	430	320.0	300	410	30	12x30°	16x22.5°	M8	9.0	ISO 4762 M8	205	186.5	8.5	(43.5)

Spur gearing DIN3967



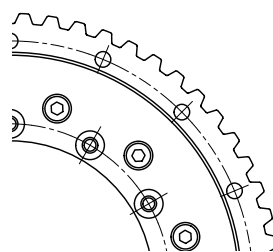
D	m	z	Part No. add-on
(88)	-	42	...-ST
(112)	2	54	...-ST
(184)	2	90	...-ST
(196)	2	96	...-ST
(256)	2	126	...-ST
(308)	2	152	...-ST
(462)	3	152	...-ST

Toothed belt profile AT10



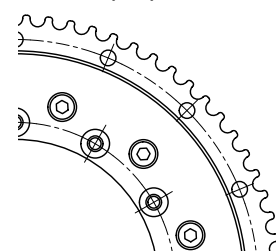
D	z	Part No. add-on
(87.25)	28	...-AT10
(106.4)	34	...-AT10
(163.8)	52	...-AT10
(189.2)	60	...-AT10
(252.9)	80	...-AT10
(303.9)	96	...-AT10
(456.7)	144	...-AT10

Toothed belt profile T10



D	z	Part No. add-on
(87.25)	28	...-T10
(106.4)	34	...-T10
(163.8)	52	...-T10
(189.2)	60	...-T10
(252.9)	80	...-T10
(303.9)	96	...-T10
(456.7)	144	...-T10

Toothed belt profile HTD5M (-20)/HTD8M



D	z	Part No. add-on
(81.25)	52	...-HTD5M
(110.7)	44	...-HTD8M
(166.7)	66	...-HTD8M
(187.1)	74	...-HTD8M
(253.3)	100	...-HTD8M
(304.3)	120	...-HTD8M
(457.1)	180	...-HTD8M

iglide®
PRT

iglide® PRT - Product range

Slewing ring bearing, low weight – Type 02



Standard



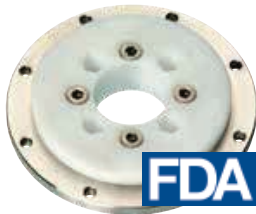
Stainless steel version



Low-cost version



Solid plastic version



FDA compliant



Order key

Type	Size	Options
PRT-02	20	AL-A180
Slewing Ring	Type	Inner-Ø [mm]
		Body material
		Outer rings

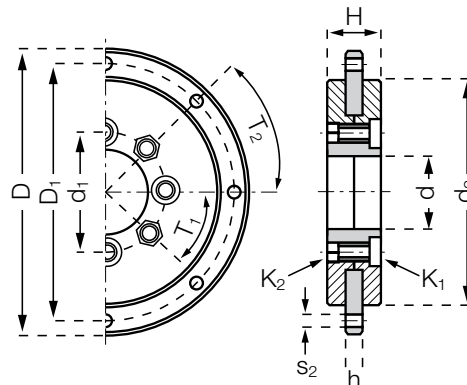
Options:

Body material

AL: Aluminum
ES: 316 Stainless steel
LC: Low-cost
P: Solid plastic

Outer rings

Blank: iglide® J4
A180: iglide® A180,
FDA-compliant



- Slewing ring with extremely low weight
- Outer ring made from anodized aluminum, 316 stainless steel (on request) or iguton G
- Outer rings made from iglide® J4 or FDA-compliant iglide® A180
- 30 % lighter with plastic screws

Dimensions [mm]

Part No.	D	D1	d1	d	d2	H	h	T1	T2	S2	K1 for screw	K2 for screw nut
PRT-02-20- 	80	70	31	20	60	16	5	6 x 60°	6 x 60°	4.5	DIN 6912 M5	DIN 439 M5
PRT-02-30- 	100	91	42.5	30	80	19	6	8 x 45°	8 x 45°	4.5	DIN 7984 M5	DIN 439 M5
PRT-02-50- 	150	135	65	50	120	20	6	16 x 22.5°	8 x 45°	6.6	Through hole 6.5 mm	
PRT-02-60-AL	160	145	86.0	60	130	30	10	12 x 30°	20 x 18°	5.5	Counter-bore Ø16 and 6.5 deep	

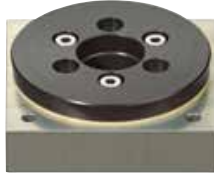
Please add suffix "-A180" for FDA-compliant version

iglide® PRT - Product range - Special geometries

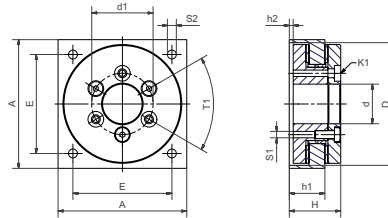
Type 01

 iglide®
PRT

Slewing ring bearing with square flange for direct mounting on flat surfaces



- No intake-hole necessary
- No separate distance ring
- Fix with only 4 screws



Dimensions [mm]

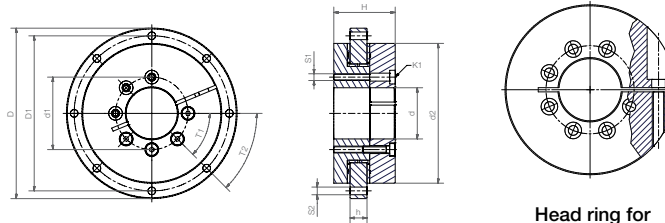
Part No.	d	d1	d2	D	A	E	H	h1	h2	T1	S1	S2	K1 for screw
PRT-01-20-SQ	20	31	60	62	65	50	26	18	2	6 x 60°	M4	4.5	DIN 7984 M4
PRT-01-30-SQ	30	42.5	82	84	85	65	30.5	10	1.5	8 x 45°	M4	4.5	DIN 7984 M4

Slewing ring with collar clamp

The slewing ring PRT-01-30 a collar ring including clamp function for 30h7 tolerance shafts.



- For simple handling designs
- Quick and easy assembly
- Max. torque moment: 5 Nm



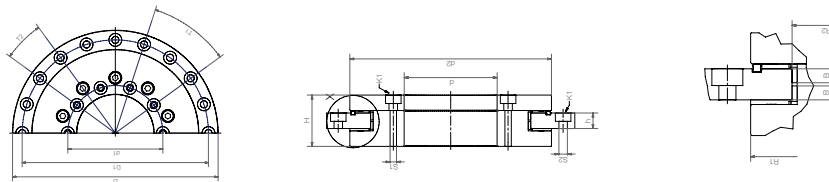
Slewing ring with collar clamp PRT-01-30-C

Head ring for
PRT-01-30-C

Dimensions [mm]

Part No.	D	D1	d1	d	d2	H	h	T1	T2	S1	S2	K1 for screw
PRT-01-30-C	100	91	42.5	30	82	36	10	6 x 45°	8 x 45°	M4	4.5	DIN 7984 M4

Slewing ring bearing with dust seal (-D: one-sided, -DD: both-sided)



Dimensions [mm]

Part No.	D ¹⁰⁾	D1	d1	d	d2 ±0.2	H	h	T1	T2	S1	S2	K1 for screw	R1	R2	B
PRT-01-60-D/DD	160	145	74	60	130	33	10	10 x 36°	20 x 18°	M5	5.5	ISO 4762 M5	65	51.5	4.5
PRT-01-100-D/DD	185	170	112	100	160	34	12	12 x 30°	16 x 22.5°	M5	5.5	ISO 4762 M5	80	69	5.5

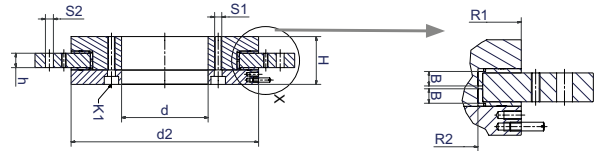
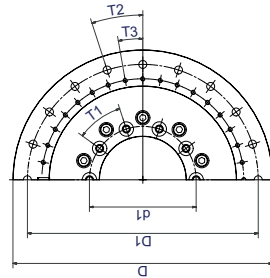
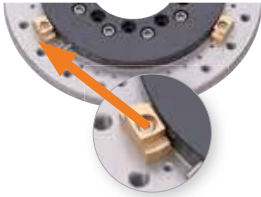
¹⁰⁾ Tolerance according to DIN ISO 2768 mK

iglide®
PRT

iglide® PRT - Product range - Special geometries

Type 01

Slewing ring bearing with angle limit - set the angle limit by yourself



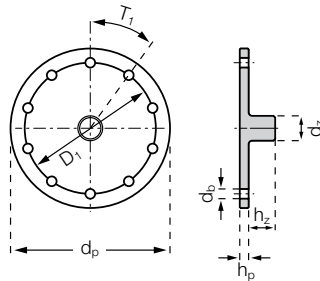
- Angle range in 2° steps
- Set your own angle limits
- Load ratings identical to standard type 01

Dimensions [mm]

Part No.	D	D1	d1	d	d2	H	h	T1	T2	T3	S1	S2	K1	R1	R2	B
PRT-01-60-TS	180	160	74	60	130	33	10	10 x 36°	20 x 18°	36 x 10°	M5	5.5	ISO 4762 M5	65	51.5	4.5

iglide® PRT - Product range - Accessories

Drive pins

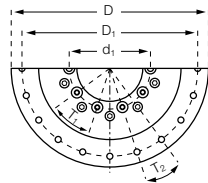


PRT with assembled drive pin

Dimensions [mm]

Part No.	dp	hp	dz	hz	D1	T1	db
PRT-AZ-30	55	5	10	15	42.5	8x45°	4.5
PRT-AZ-60	90	5	14	15	74	10x36°	5.5

Slewing ring bearing with enlarged outer ring



Dimensions [mm] – other dimensions similar to standard type PRT-01 ► page 650

Part No. ¹¹⁾	D	D1	S2
PRT-01-100-M-ARG	205	185	5.5
PRT-01-100-M-ARGG	205	185	M6
PRT-01-100-M-ARGS	205	185	5.5
PRT-01-200-M-ARG	320	300	7.0
PRT-01-200-M-ARGG	320	300	M8
PRT-01-200-M-ARGS	320	300	7.0

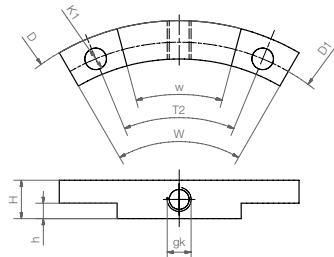
¹¹⁾ Ending: -G standard, -GG thread- or -GS counter-bore

iglide® PRT - Product range - Accessories

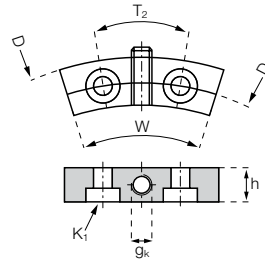
For Type 01

iglide®
PRT

Manual clamp



PRT-HK-30



PRT-HK-60/100/200



PRT with fitted
manual clamp

- With 1 Nm screw torque, a holding torque up to 10 Nm is possible
- Easy to screw onto outer ring

Dimensions [mm]

Part No.	D	D1	T2	K1 for screw	H	h	gk	W
PRT-HK-30	100	91	45°	Ø 4.5	8	3.2	M5	60°
PRT-HK-60	160	145	18°	DIN 7984 M5	–	10	M6	35°
PRT-HK-100 ¹²⁾	205	185	22.5°	DIN 7984 M5	–	10	M6	40°
PRT-HK-200 ¹²⁾	320	300	22.5°	DIN 7984 M6	–	10	M6	40°



¹²⁾ To be connected only with enlarged outer ring

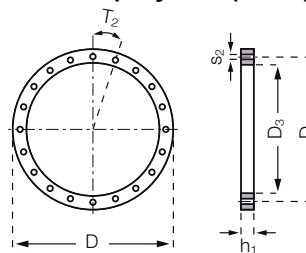
Spacing rings made of anodized aluminum or polymer (POM)



Aluminum



Plastic



PRT with mounted
spacing ring

Dimensions [mm]

Part No. ³⁹⁾	D	D1	T2	S2	D3	h1
PRT-01-20-DR	80	70	6 x 60°	4.5	62	10
PRT-01-30-DR	100	91	8 x 45°	4.5	84	11
PRT-01-60-DR	160	145	20 x 18°	5.5	132	13
PRT-01-100-DR	185	170	16 x 22.5°	5.5	162	13
PRT-01-150-DR	250	235	16 x 22.5°	5.5	222	13
PRT-01-200-DR	300	285	16 x 22.5°	7.0	276	13
PRT-01-300-DR	450	430	16 x 22.5°	9.0	412	15

³⁹⁾ Please add suffix "-POM" for plastic version (not available for sizes 150 and 300)

iglide® PRT - Product range - Accessories for Type 01

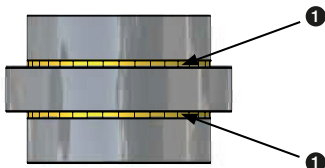
Customize your own slewing ring systems

Using the versatile iglide® PRT universal slide elements, large slewing ring systems can be tailored to the Type 01. Depending on the number of elements, slewing ring systems with internal diameters of 0.5 to 5 m are possible. We would be glad to assist you during the design stage.

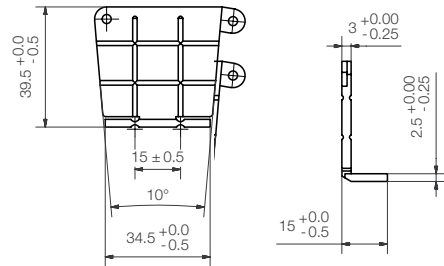
- Made from the proven iglide® J
- Slewing ring bearings possible from 0.5 up to 5 meters
- Low wear
- Sturdy, resistant to dirt
- Corrosion free and resistant to liquids
- Self-lubricating and maintenance-free



Basic construction of type 01:

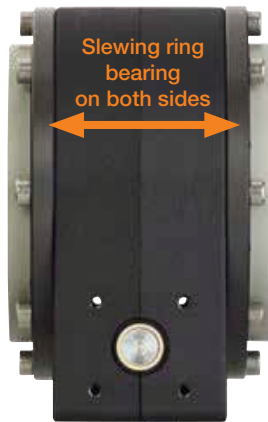


- 1 Slide elements made of iglide® J



iglide® PRT - Product range - Robolink D robot joint

iglide®
PRT



Robolink® D robot joint - Symmetrical with two PRT slewing ring bearings

Slewing ring bearing (iglide® PRT) with a plastic housing. The drive component is a worm gear. The center bore-hole remains free for feeding cables etc through. The articulated joints can be ordered with or without motor.

Self-locking drive

Light, compact and lubrication free

Construction kit: Plastic housing + worm wheel made from iglide® J + worm shaft + PRT slewing ring bearings + axial roller bearings + radial bearings + VA screws

Adaptable to various motors,

standard option: stepper motor NEMA17 / 23 / 23XL

INI kit for zero position optionally adaptable

Technical data

	Size 20 RLD-20-S-38-ST	Size 30 RLD-30-S-50-ST	Size 50 RLD-50-S-48-ST
Weight [g]	410	730	1,900
Reduction gearing	38:1	50:1	48:1
Axis distance [mm]	31	40	63
Efficiency	> 0.25	> 0.25	> 0.25
Breakaway torque [cNm]	< 5	< 7	< 10



Robolink® D robot joint - Asymmetrical with one PRT slewing ring bearing and cover plate

Slewing ring bearing (iglide® PRT) in a plastic housing. The drive component is a worm gear. The center bore-hole remains free for feeding cables etc through. The articulated joints can be ordered with or without motor.

Self-locking drive

Light, compact and lubrication free

Construction kit: Plastic housing + worm wheel made from iglide® J + worm shaft + PRT slewing ring bearings + axial roller bearings + radial bearings + VA screws

Adaptable to various motors,

standard option: stepper motor NEMA17 / 23 / 23XL

Application e.g. horizontal on base plate

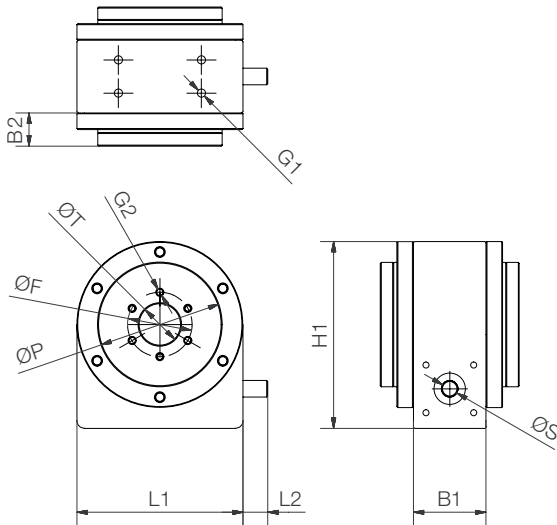
Technical data

	Size 20 RLD-20-A-38-ST	Size 30 RLD-30-A-50-ST	Size 50 RLD-50-A-48-ST
Weight [g]	320	570	1,550
Reduction gearing	38:1	50:1	48:1
Axis distance [mm]	31	40	63
Efficiency	> 0.25	> 0.25	> 0.25
Breakaway torque [cNm]	< 5	< 7	< 10

iglide®
PRT

iglide® PRT - Product range - Robolink D robot joint

Symmetrical - with two PRT slewing ring bearings



3 versions

Standard: Aluminum PRT (PRT-02-xx-AL), aluminum worm shaft (AL hard anodized). Application, for example, in our low cost robot arms as front joints (RLD 20 and RLD 30).

Low cost: Low cost PRT (PRT-02-xx-LC), worm shaft made from plastic RN33. Application, for example, for manual adjustments.

High end: PRT design 01 (PRT-01-xx), aluminum worm shaft (AL hard-anodized), high rigidity. Application, for example, as the first pivoting axis in Robolink articulated arms.

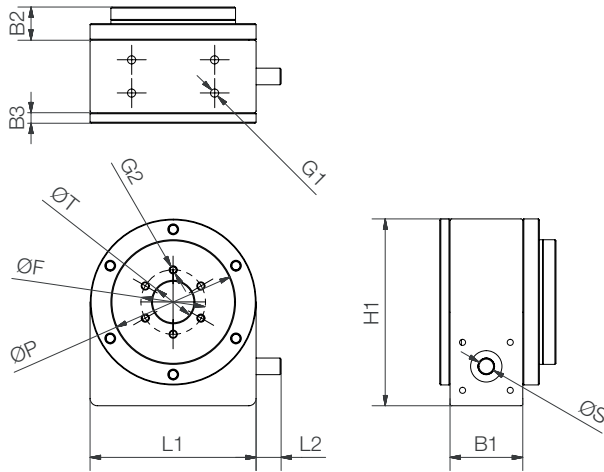
Dimensions

Part no.	ØT	ØS	ØP	ØF	L1	L2	B1	B2	H1	G1	G2
Symmetrical - Standard											
RLD-20-S-38-ST	20	8	60	31	80	12	35	10.5	90	M4	3 x M5
RLD-30-S-50-ST	30	10	80	42.5	100	12	45	12.5	110	M4	4 x M5
RLD-50-S-48-ST	50	15	120	60	150	13	60	13	170	M6	4 x M6
Symmetrical - Low cost											
RLD-20-S-38-LC	20	8	60	31	80	12	35	10.5	90	M4	3 x M5
RLD-30-S-50-LC	30	10	80	42.5	100	12	45	12.5	110	M4	4 x M5
RLD-50-S-48-LC	50	15	120	60	150	13	60	13	170	M6	4 x M6
Symmetrical - High end											
RLD-20-S-38-HE	20	8	60	31	80	12	35	16	90	M4	6 x M4
RLD-30-S-50-HE	30	10	80	42.5	100	12	45	19.5	110	M4	8 x M4
RLD-50-S-48-HE	50	15	120	65	150	13	60	21.5	170	M6	8 x M6

iglide® PRT - Product range - Robolink D robot joint

Asymmetrical - with one PRT slewing ring bearing and cover plate

iglide®
PRT



3 versions

Standard: 1 aluminum PRT (PRT-02-xx-AL),

aluminum worm shaft (AL hard anodized)

Application, for example, in our low cost robot arms as front joints (RLD 20 and RLD 30).

Low cost: 1 low-cost PRT (PRT-02-xx-LC),

worm shaft made from plastic RN33

Application, for example, for manual adjustments

High end: 1 PRT design 01 (PRT-01-xx), aluminum worm shaft (AL hard-anodized), high rigidity.

Application, for example, as the first rotating axis in Robolink articulated arms.

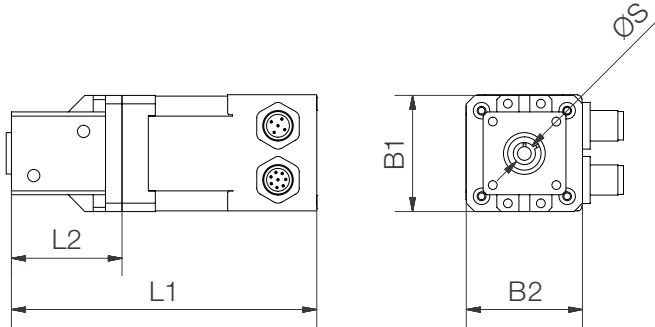
Dimensions

Part no.	ØT	ØS	ØP	ØF	L1	L2	B1	B2	H1	G1	G2
Asymmetrical - Standard											
RL-D-20-A-38-ST	20	8	60	31	80	12	35	10.5	90	M4	3 x M5
RL-D-30-A-50-ST	30	10	80	42.5	100	12	45	12.5	110	M4	4 x M5
RL-D-50-A-48-ST	50	15	120	60	150	13	60	13	170	M6	4 x M6
Asymmetrical - Low cost											
RL-D-20-A-38-LC	20	8	60	31	80	12	35	10.5	90	M4	3 x M5
RL-D-30-A-50-LC	30	10	80	42.5	100	12	45	12.5	110	M4	4 x M5
RL-D-50-A-48-LC	50	15	120	60	150	13	60	13	170	M6	4 x M6
Asymmetrical - High end											
RL-D-20-A-38-HE	20	8	60	31	80	12	35	16	90	M4	6 x M4
RL-D-30-A-50-HE	30	10	80	42.5	100	12	45	19.5	110	M4	8 x M4
RL-D-50-A-48-HE	50	15	120	65	150	13	60	21.5	170	M6	8 x M6

iglide®
PRT

iglide® PRT - Product range - Robolink D robot joint

Robolink D robot joint with direct drive



The articulated joints can be ordered with or without motor. We currently offer igus® stepper motors as standard. Other motors will be available in the future. The Robolink D articulated joints are available in 3 sizes.

Adaptable to various motors, standard option: stepper motor
NEMA17 / 23 / 23XL

INI kit for zero position optionally adaptable

Dimensions

NEMA 17					
Part No.	ØS	L1	L2	B1	B2
NEMA17 Standard					
RLD-20-MK-C-N17-02	8	110.4	40	42	42
RLD-30-MK-C-N17-02	10	110.4	40	42	42
NEMA17 stepper motor with encoder					
RLD-20-MK-C-N17-01	8	110.4	40	42	42
RLD-30-MK-C-N17-01	10	110.4	40	42	42
NEMA17 with stranded wires					
RLD-20-MK-C-N17-00	8	110.4	40	42	42
RLD-30-MK-C-N17-00	10	110.4	40	42	42
NEMA 23					
Part No.	ØS	L1	L2	B1	B2
NEMA23 Standard					
RLD-30-MK-C-N23-02	10	140	42	56.4	56.4
RLD-50-MK-C-N23-02	15	146	48	60	60
NEMA23 stepper motor with encoder					
RLD-30-MK-C-N23-01	10	140	42	56.4	56.4
RLD-50-MK-C-N23-01	15	146	48	60	60
NEMA23 with stranded wires					
RLD-30-MK-C-N23-00	10	140	42	56.4	56.4
RLD-50-MK-C-N23-00	15	146	48	60	60
NEMA23XL					
RLD-50-MK-C-N23XL-02	15	158.5	48	60	60
RLD-50-MK-C-N23XL-01	15	158.5	48	60	60
RLD-50-MK-C-N23XL-00	15	158.5	48	60	60

iglide® PRT - Product range - Robolink D robot joint

Robolink D robot joint with direct drive

iglide®
PRT



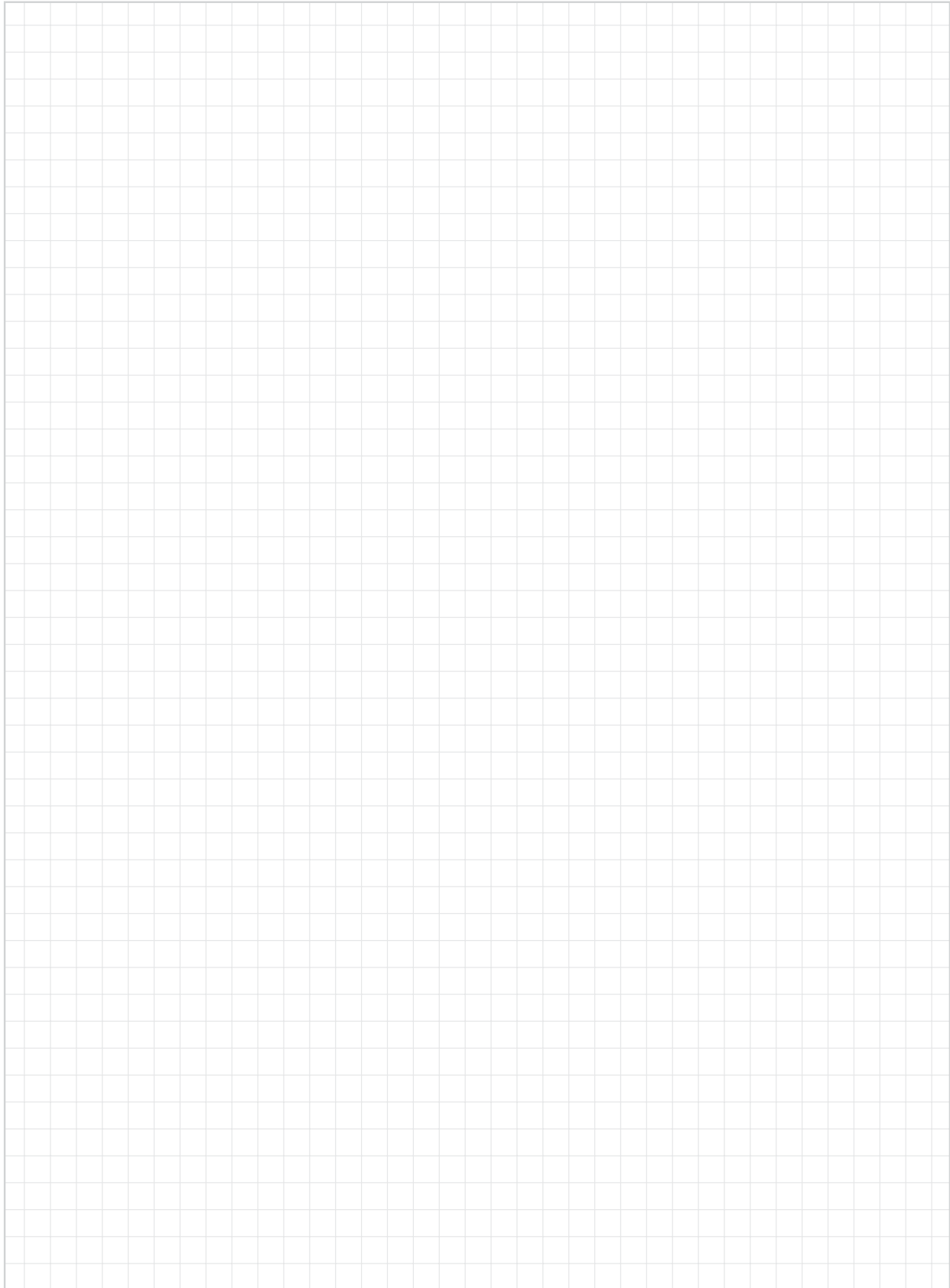
Initiator-Kit	
Fitting	M8x1
Switching output	PNP
Switching function	NO (Closer)
Operating voltage	10...30 V DC
Rated operational current	100 mA
Part no.	RLD-20-IK-001 RLD-30-IK-001 RLD-50-IK-001

Motor kit	
Motor type	igus® stepper motor NEMA17, NEMA23, NEMA23XL
Flange dimension [mm]	42, 56, 60
Part no.	See dimensions table for standard version (-02) with NEMA motor. Other versions with stranded wire motors (-00) or with stepper motor and encoder (-01) also available.

Technical data

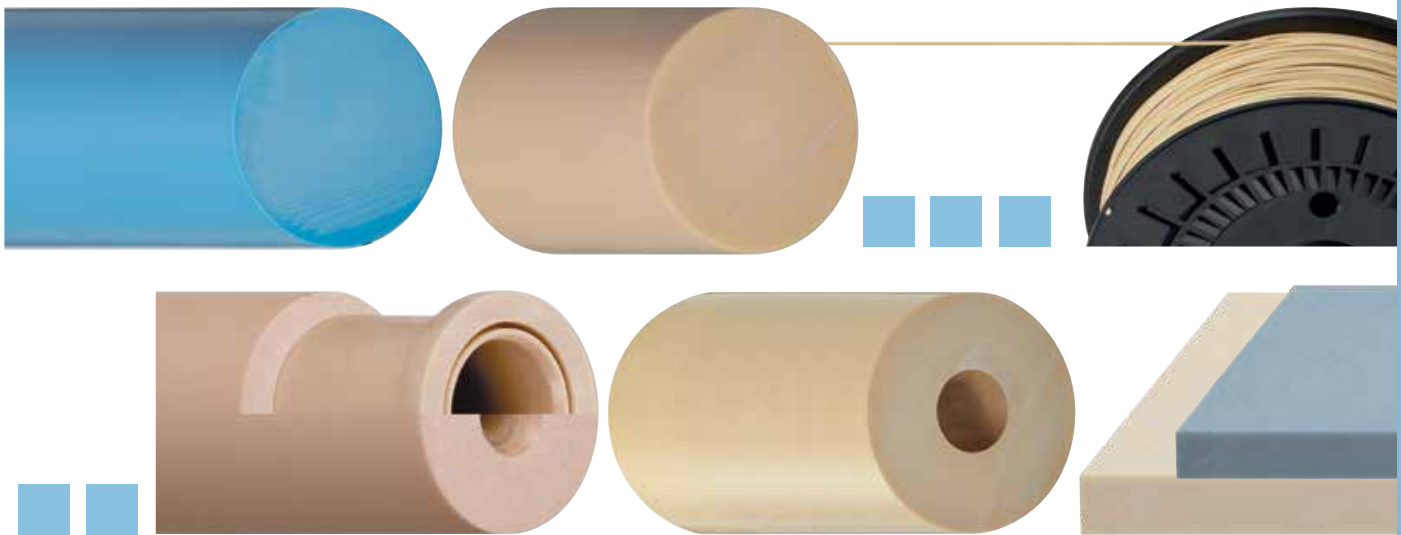
Joint		Size 20	Size 30		Size 50	
		RLD-20-S-38-XX + NEMA17	RLD-30-S-50-XX + NEMA17	+ NEMA23	RLD-50-S-48-XX + NEMA23	+ NEMA23XL
Motor		Stepper motor				
Motor type		Stepper motor				
Weight (with standard joint)	[g]	890	1,1140	1,860	2,540	2,970
Max. radial torque strength (short term)	[Nm]	5	6	12	21	38
Max. radial torque strength (long term)	[Nm]	4	5	8	18	33
Max. speed (at max. load)	[rpm]	5	4	4	4	4
Max. axial dynamic load (horiz. installation)	[N]	> 500	> 700	> 700	> 1,200	> 1,200

Notes



3. iglide®

Bar stock
Tribo-Tape
Tribo-Filament



...plastics

Bar stock, Tribo-Tape, Tribo-Filament | Product overview

For free design



iglide® A160 – highly media resistant, low cost material

➤ Page 671



iglide® A180 – the general purpose solution for the medical and food industries (FDA compliant)

➤ Page 671



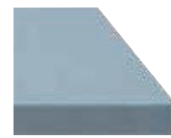
iglide® A181 – food grade material, compliant with FDA specifications and EC Directive 10/2011

➤ Page 671



iglide® A350 – the FDA-compliant high-temperature material

➤ Page 672



iglide® A350 – as plate material

➤ Page 672



iglide® J2 – versatile and cost-effective

➤ Page 676



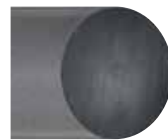
iglide® J3 – high service life, low coefficients of friction

➤ Page 676



iglide® J4 – wear resistant and cost effective

➤ Page 676



iglide® J200 – specially for aluminum shafts

➤ Page 677



iglide® J260 – ideal for plastic shafts

➤ Page 677



iglide® UW160 – for continuous use in liquid media

➤ Page 679



iglide® L280 (W300) – the material for high load requirements

➤ Page 680



iglide® T500 (X) – the media-resistant high-temperature material

➤ Page 680

Liners – iglide® off the reel



Tribo-Tape made from iglide® A160 for temperatures of up to +212°F

➤ Page 683



Tribo-Tape made from iglide® B160 for temperatures of up to +212°F

➤ Page 683



Tribo-Tape made from iglide® V400: highly wear resistant up to +392°F

➤ Page 683

3D filament – for conventional 3D printers



Standard material: iglide® I180-PF

➤ Page 687



Standard material - Black: iglide® I180B-PF

➤ Page 687



Highest wear resistance: iglide® I170-PF

➤ Page 687



High temperature resistant: iglide® J260-PF

➤ Page 687

Bar stock, Tribo-Tape, Tribo-Filament | Product overview



iglide® F2 –
used to prevent electro-
static charges

▶ Page 673



iglide® H1 –
for special plain bearings
and gliding elements
under extreme conditions

▶ Page 673



iglide® J –
general purpose with
optimum wear resistance
and outstanding efficiency

▶ Page 674



iglide® J –
as a tube for larger
diameters

▶ Page 675



iglide® J –
as plate material

▶ Page 675



iglide® J350 –
the high temperature
material

▶ Page 677



iglide® P210 –
the material for high
speeds at low loads

▶ Page 678



iglide® R –
low-cost material

▶ Page 678



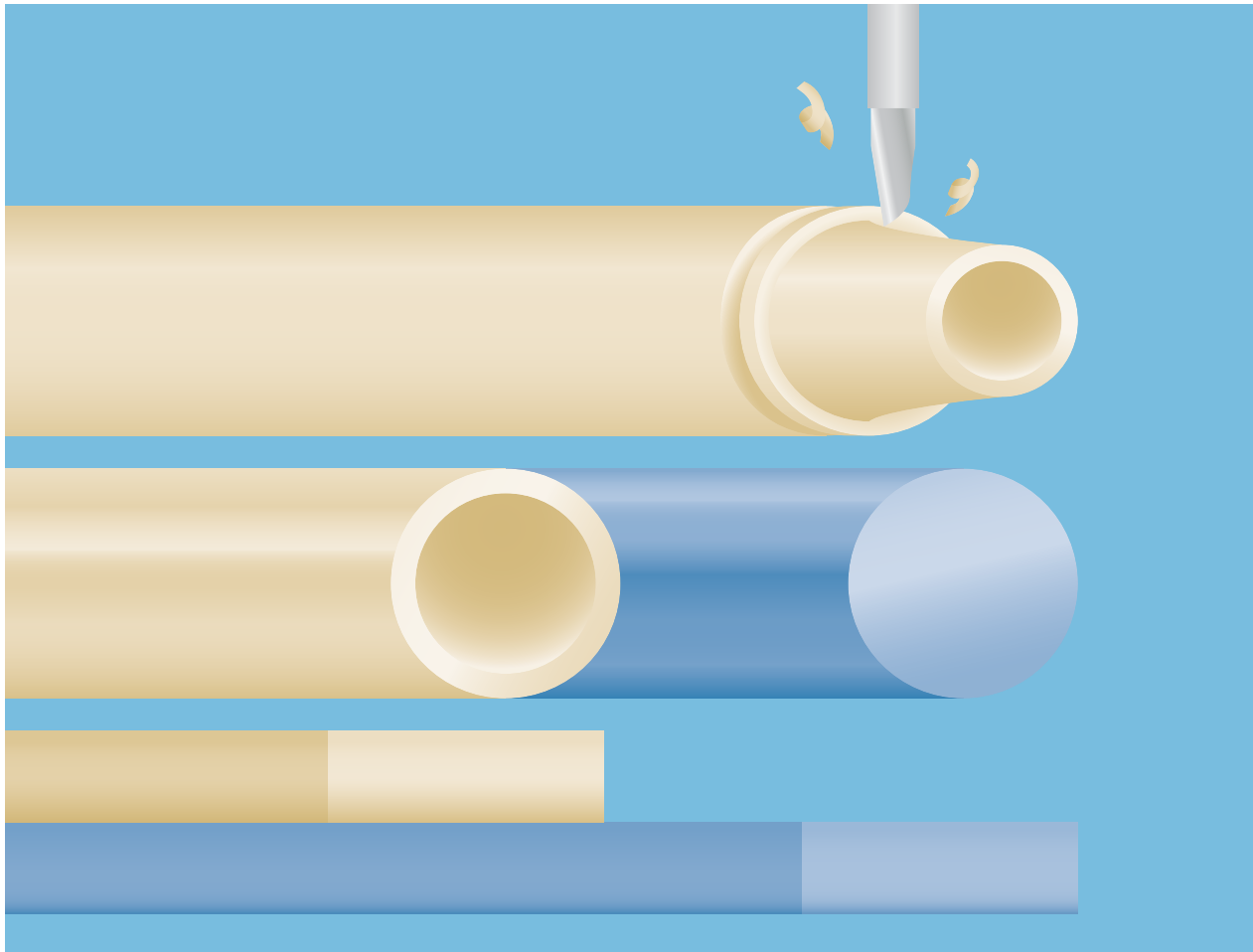
iglide® M250 –
vibration dampening

▶ Page 678



iglide® T220 –
for the tobacco industry

▶ Page 679



iglide® bar stock

- Fast and cost-effective
- iglide® materials as round bars, tubes and plates
- Cut to required size without offcut removal
- Mechanical processing with no minimum order
- Maintenance-free
- Predictable lifetime calculation tools
- Standard range from stock

iglide® bar stock - Advantages

For free design

iglide® round bars



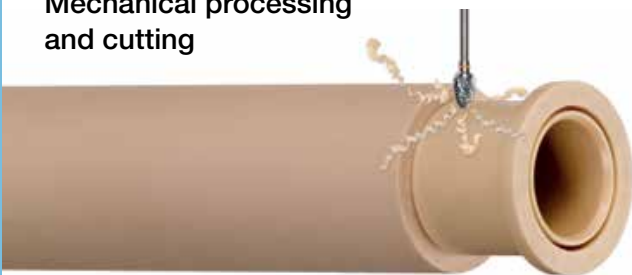
iglide® plates



iglide® tubes



Mechanical processing
and cutting





iglide® in one piece


Self-lubricating iglide® bar stock enables you to freely design all kinds of maintenance free sliding elements and bearings. The broad range of iglide® plain bearing materials enables you to match the bearing material with the best friction and wear values for the shaft.

20 iglide® materials are currently available for selection as round bar stock. Additional iglide® plain bearing materials will follow. In addition to round bars, materials are also available in the form of tubes and plates.


In addition to the bar stock for independent processing, we will also gladly produce plain bearings, sliding elements and pads in all forms. We can even provide urgent prototypes in a matter of days.


 **Service life calculation**
► www.igus.com/barstock-expert

 **Temperature range:**
-58°F (-50°C) up to 194°F (+90°C)
for standard iglide® J
-148°F (-100°C) up to 482°F (+250°C)
(depending on material)

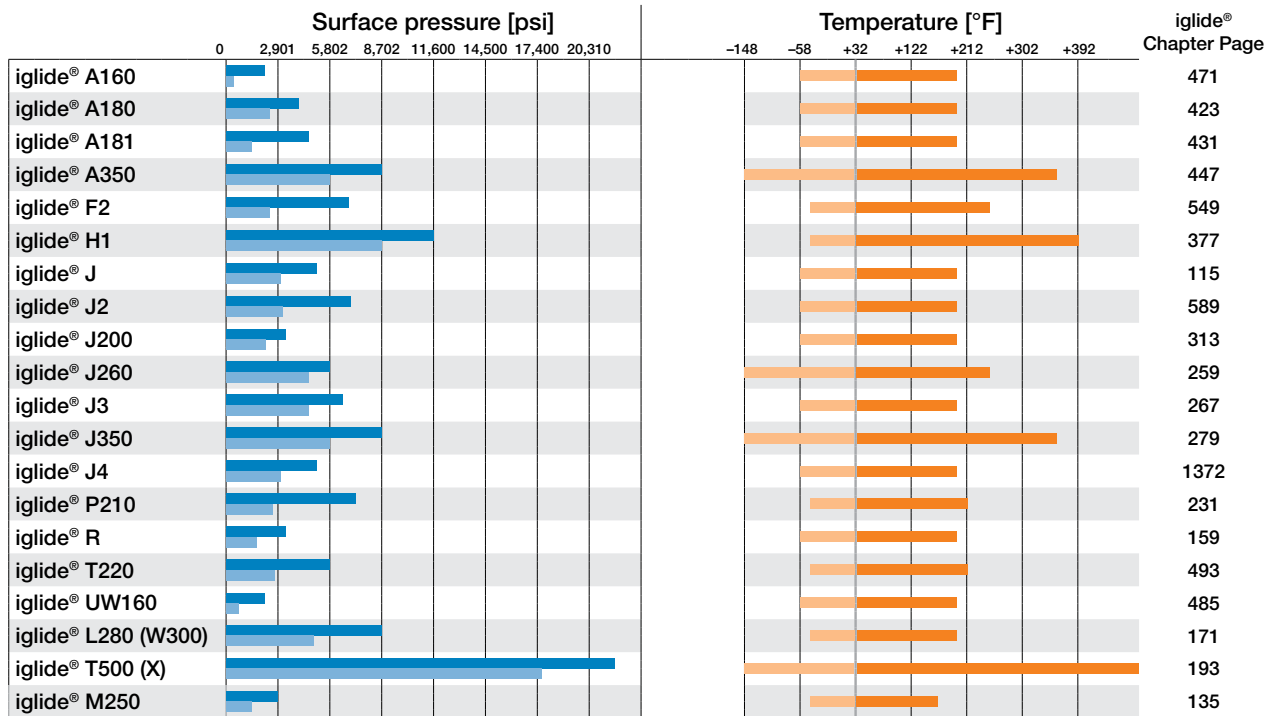
 **20 Materials**
Round bars: Ø 10–100 mm
Plate thickness: ↓ 2–40 mm
Tubes: up to 150 mm outer Ø

 igus® is constantly expanding its range of available materials and dimensions. Check the current stock online at:
► www.igus.com/barstock

 **Available from stock**
Detailed information about delivery times can be found online. Further materials and dimensions on request.

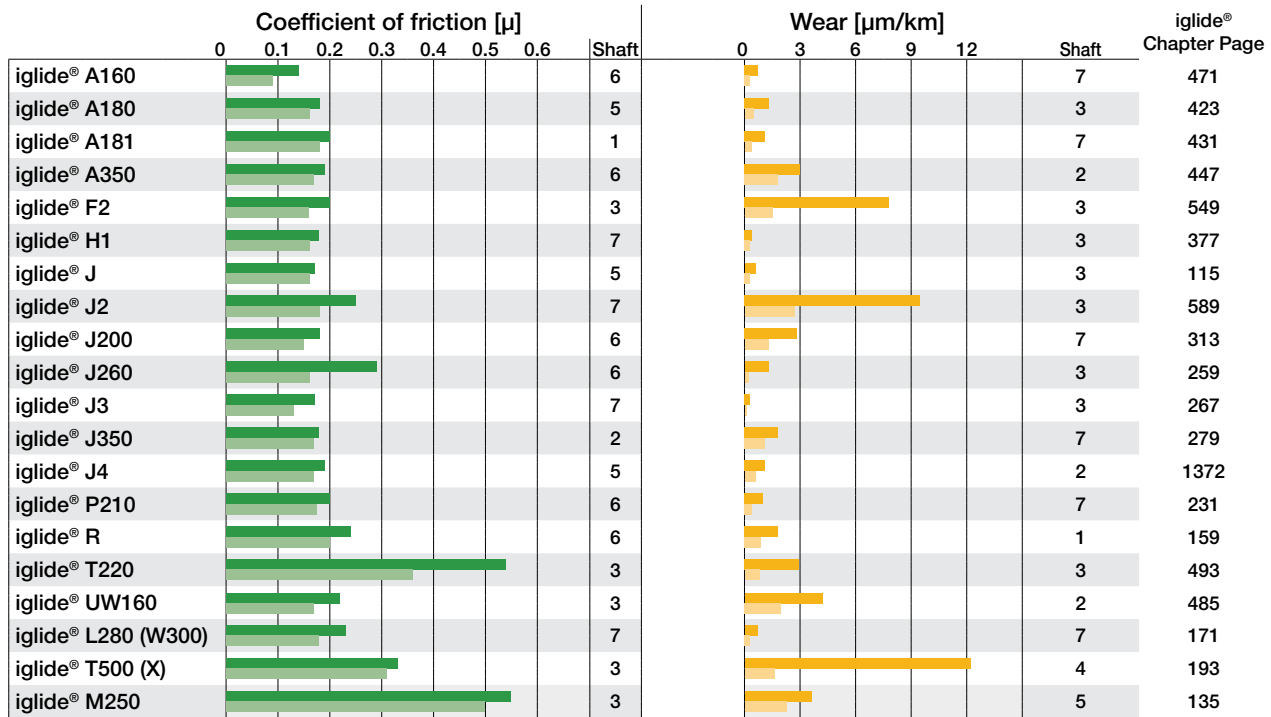
 In addition to bar stock, we will also gladly offer machining to print specifications.

iglide® bar stock - Selection based on main properties



Maximum permissible surface pressure of iglide® bearings at
■ +68 °F ■ +176 °F

Important temperature limits of iglide® materials
■ Max. long term application temperature
■ Minimum application temperature



Coefficients of friction of iglide® materials rotating, p = 145 psi, v = 59 fpm
■ Average of all the seven sliding combinations tested
■ Wear of best combination

Wear of iglide® materials rotating, p = 145 psi
■ Average of all the seven sliding combinations tested
■ Wear of best combination



Shaft material:
 1 = 1050, case hardened 3 = Hard anodized aluminum 5 = Machinery Steel 7 = 440B Stainless
 2 = 1050, case hardened steel, chromed 4 = Free-cutting steel 6 = 304 Stainless

iglide® bar stock - Processing information

Processing information for iglide® bar stock

General information for achieving the best possible results when processing iglide® bar stock:

- Use tools made of high-speed steels (HSS) and hard metal (HM)
- Always ensure the tools are extremely sharp and in perfect condition
- Due to greater thermal expansion compared to metals and the dimensional changes that occur as a result of moisture

absorption, larger production tolerances are required for plastics than for metal parts

- If large material volumes are to be machined, interim tempering should be used before the refined finishing stage in order to reduce retrospective warping.

	Sawing	Turning	Milling	Drilling
Tool material	HM with alternate teeth or trapezoidal flat teeth	HSS	HSS	HSS
Clearance angle	5–30°	2–10°	2–30°	3–16°
Rake angle	0–15°	0–8°	0–15°	5–30°
Tooth pitch	2–14 mm	–	–	–
Setting angle	–	45–60°	–	–
Tip angle	–	–	–	90–130°
Cutting speed	max. 300 m/min.	100–500 m/min.	80–500 m/min.	20–200 m/min.
Feed rate	–	0.05–0.5 mm/rpm		0.02–0.3 mm/rpm

Table: General processing information

Tempering

Interim tempering reduces inner tensions caused by the machining process, and thus creates narrower tolerances. In the end, the optimum values depend on the volume of material machined, the machining parameters and the geometric design of the end product, which should be determined by tests.

As the plastic has low thermal conductivity, the plastic bar stock has to be heated slowly.

When possible, the entire bar stock should be evenly heated. Therefore, it is important to achieve the appropriate temperatures for material tempering indicated below over a period of 3 – 4 hours by slowly heating the part from room temperature. Depending on the thickness of the part, this temperature should be maintained for 1 hour per cm of wall thickness.

If the machined part cools too quickly, tension can once again be induced. This is avoided by using a slow cooling process with a maximum reduction of 68°F (20 °C) per hour until room temperature is reached.

Tempering temperatures	iglide® materials
248°F (+120 °C)	A180, A181, J, J2, M250 J3, J4, J200, R
266°F (+130 °C)	J260
356°F (+180 °C)	F2, P210, T220, L280
392°F (+200 °C)	A350, H1, J350
428°F (+220 °C)	T500 ¹¹¹⁾

¹¹¹⁾ In the case of iglide® T500, the 428°F (220 °C) per cm of wall thickness must be maintained for 2 hours.

iglide® bar stock - Product range



iglide® A160

High media-resistant,
low cost material



iglide® A180

General purpose for medical and food industry
(FDA compliant)



iglide® A181

The food grade material, compliant with FDA
specifications and EC Directive 10/2011 EC

Material properties table

General properties	Unit	iglide® A160	iglide® A180	iglide® A181
Density	g/cm ³	1.00	1.46	1.38
Color		blue	white	blue
Max. moisture absorption at +73 °F/50% r.h.	% weight	0.1	0.2	0.2
Max. water absorption	% weight	0.1	1.3	1.3
Coefficient of sliding friction, dynamic against steel	μ	0.09–0.19	0.05–0.23	0.10–0.21
PV value, max. (dry)	psi · ft/min	7,800	8,750	8,750
Mechanical properties				
Modulus of elasticity	psi	166,938	333,600	277,457
Tensile strength at +68°F	psi	2,755	12,760	6,961
Compressive strength	psi	5,366	11,310	8,700
Max. recommended surface pressure (+68 °F)	psi	2,175	4,060	4,496
Shore-D Hardness		60	76	76
Physical and thermal properties				
Max. long term application temperature	°F	+194	+194	+194
Max. short term application temperature	°F	+212	+230	+230
Min. application temperature	°F	-58	-58	-58
Thermal conductivity	W/m · K	0.30	0.25	0.25
Coefficient of thermal expansion (at +73 °F)	K ⁻¹ · 10 ⁻⁵	11	11	11
Electrical properties				
Specific volume resistance	Ωcm	> 10 ¹²	> 10 ¹²	> 10 ¹²
Surface resistance	Ω	> 10 ¹²	> 10 ¹¹	> 10 ¹²

Dimensions (mm)

Ø	Lengths ¹⁶⁾	Part No.
iglide® A160		
30	100 to 1,000	SA160-30
iglide® A180		
10	100 to 1,000	SA180-10
20	100 to 1,000	SA180-20
30	100 to 1,000	SA180-30
40	100 to 1,000	SA180-40
50	100 to 1,000	SA180-50
60	100 to 1,000	SA180-60
80	100 to 1,000	SA180-80
100	100 to 1,000	SA180-100

Ø	Lengths ¹⁶⁾	Part No.
iglide® A181		
25	100 to 1,000	SA181-25
30	100 to 1,000	SA181-30
35	100 to 1,000	SA181-35
40	100 to 1,000	SA181-40
45	100 to 1,000	SA181-45
50	100 to 1,000	SA181-50

Order key for round bars

Type	Dimensions
S	A160-30-500
Bar stock	iglide®-Material
	Outer Ø (mm)
	Length ¹⁶⁾ (mm)

¹⁶⁾ Minimum length 100 mm - maximum length 1 m

iglide®
bar stock

iglide® bar stock - Product range



iglide® A350

Temperature resistant, FDA-compliant

Material properties table

General properties	Unit	iglide® A350
Density	g/cm ³	1.42
Color		blue
Max. moisture absorption at +73°F/50% r.h.	% weight	0.6
Max. water absorption	% weight	1.9
Coefficient of sliding friction, dynamic against steel	μ	0.10–0.20
PV value, max. (dry)	psi · ft/min	11,500
Mechanical properties		
Modulus of elasticity	psi	290,075
Tensile strength at +68°F	psi	15,950
Compressive strength	psi	11,312
Max. recommended surface pressure (+68°F)	psi	8,700
Shore-D Hardness		76
Physical and thermal properties		
Max. long term application temperature	°F	+356
Max. short term application temperature	°F	+410
Min. application temperature	°F	-148
Thermal conductivity	W/m · K	0.24
Coefficient of thermal expansion (at +73°F)	K ⁻¹ · 10 ⁻⁵	8
Electrical properties		
Specific volume resistance	Ωcm	> 10 ¹¹
Surface resistance	Ω	> 10 ¹¹

Dimensions (mm)

Ø	Lengths ¹⁶⁾	Part No.	Ø	Lengths ¹⁶⁾	Part No.
	iglide® A350		40	100 to 1,000	SA350-40
20	100 to 1,000	SA350-20	50	100 to 1,000	SA350-50
30	100 to 1,000	SA350-30	60	100 to 1,000	SA350-60
			80	100 to 1,000	SA350-80

¹⁶⁾ Minimum length 100 mm - maximum length 1 m

Dimensions (mm) – iglide® A350 as plate material

Material thickness	Tolerance	Dimensions	Part No. for plates
15	+0.300 +1.500	1.000 x 610	A350P100061015
15	+0.300 +1.500	500 x 610	A350P50061015
15	+0.300 +1.500	500 x 300	A350P50030015
20	+0.300 +1.500	1.000 x 610	A350P100061020
20	+0.300 +1.500	500 x 610	A350P50061020
20	+0.300 +1.500	500 x 300	A350P50030020
25	+0.300 +1.500	1.000 x 610	A350P100061025
25	+0.300 +1.500	500 x 610	A350P50061025
25	+0.300 +1.500	500 x 300	A350P50030025

iglide® bar stock - Product range

iglide®
bar stock



iglide® F2

Used to prevent electrostatic charges



iglide® H1

For special plain bearings and bearing elements under extreme conditions


Material properties table			
General properties	Unit	iglide® F2	iglide® H1
Density	g/cm ³	1.52	1.53
Color		black	cream
Max. moisture absorption at +73 °F/50% r.h.	% weight	0.2	0.1
Max. water absorption	% weight	0.4	0.3
Coefficient of sliding friction, dynamic against steel	μ	0.16–0.22	0.06–0.20
PV value, max. (dry)	psi · ft/min	8,750	28,800
Mechanical properties			
Modulus of elasticity	psi	1,075,890	406,100
Tensile strength at +68°F	psi	13,488	7,977
Compressive strength	psi	8,847	11,310
Max. recommended surface pressure (+68 °F)	psi	6,815	11,600
Shore-D Hardness		72	77
Physical and thermal properties			
Max. long term application temperature	°F	+248	+392
Max. short term application temperature	°F	+329	+464
Min. application temperature	°F	-40	-40
Thermal conductivity	W/m · K	0.61	0.24
Coefficient of thermal expansion (at +73 °F)	K ⁻¹ · 10 ⁻⁵	5	6
Electrical properties			
Specific volume resistance	Ωcm	< 10 ⁹	> 10 ¹²
Surface resistance	Ω	< 10 ⁹	> 10 ¹¹

Dimensions (mm)

Ø	Lengths ¹⁶⁾	Part No.
	iglide® F2	
30	100 to 1,000	SF2-30

Ø	Lengths ¹⁶⁾	Part No.
	iglide® H1	
30	100 to 1,000	SH1-30

¹⁶⁾ Minimum length 100 mm - maximum length 1 m

 **Order key
for round bars**

Type	Dimensions
S F2 - 30 500	
Bar stock	iglide®-Material
	Outer Ø (mm)
	Length¹⁶⁾ (mm)

 **Order key
for plates**

Type	Dimensions
A350 P 500 610 15	
iglide®-Material	Plate
	Length (mm)
	Width (mm)
	Material thickness (mm)

iglide®
bar stock

iglide® bar stock - Product range



iglide® J

The general purpose solution with optimum wear resistance and outstanding efficiency


Material properties table

General properties	Unit	iglide® J
Density	g/cm ³	1.49
Color		yellow
Max. moisture absorption at +73°F/50% r.h.	% weight	0.3
Max. water absorption	% weight	1.3
Coefficient of sliding friction, dynamic against steel	μ	0.06–0.18
PV value, max. (dry)	psi · ft/min	0.34
Mechanical properties		
Modulus of elasticity	psi	348,090
Tensile strength at +68°F	psi	10,590
Compressive strength	psi	8,700
Max. recommended surface pressure (+68°F)	psi	5,075
Shore-D Hardness		74
Physical and thermal properties		
Max. long term application temperature	°F	+194
Max. short term application temperature	°F	+248
Min. application temperature	°F	-58
Thermal conductivity	W/m · K	0.25
Coefficient of thermal expansion (at +73°F)	K ⁻¹ · 10 ⁻⁵	10
Electrical properties		
Specific volume resistance	Ωcm	> 10 ¹³
Surface resistance	Ω	> 10 ¹²

Dimensions (mm)

Ø	Lengths ¹⁶⁾	Part No.	Ø	Lengths ¹⁶⁾	Part No.
 iglide® J			35	100 to 1,000	SJ-35
			40	100 to 1,000	SJ-40
10	100 to 1,000	SJ-10	50	100 to 1,000	SJ-50
15	100 to 1,000	SJ-15	60	100 to 1,000	SJ-60
20	100 to 1,000	SJ-20	65	100 to 1,000	SJ-65
25	100 to 1,000	SJ-25	80	100 to 1,000	SJ-80
30	100 to 1,000	SJ-30	100	100 to 1,000	SJ-100

¹⁶⁾ Minimum length 100 mm - maximum length 1 m

 **Order key
for round bars**

Type	Dimensions
S J	- 30 500
Bar stock	iglide®-Material
	Outer Ø (mm)
	Length ¹⁶⁾ (mm)

 **Order key
for tubes**

Type	Dimensions
S T - J	- 150 500
Bar stock	Round
	iglide®-Material
	Outer Ø (mm)
	Length ¹⁶⁾ (mm)

 **Order key
for plates**

Type	Dimensions
J P	500 610 15
iglide®-Material	Plate
	Length (mm)
	Width (mm)
	Material thickness (mm)

iglide® bar stock - Product range

iglide®
bar stock



Dimensions (mm) – iglide® J in larger diameters as a tube

Inner Ø	ID-Tolerance	Outer Ø	OD-Tolerance	Length ¹⁶⁾	Part No.
70	-2.0 / -6.5	110	+1.5 / +4.5	100 to 1,000	ST-J-11070
70	-2.0 / -6.5	125	+1.5 / -2.0	100 to 1,000	ST-J-12570
100	-2.0 / -6.5	150	+1.5 / +4.5	100 to 1,000	ST-J-150100

¹⁶⁾ Minimum length 100 mm - maximum length 1 m



Dimensions (mm) – iglide® J as plate material

Material thickness	Tolerance	Dimensions	Part No.
2	+0.000 +0.200	1,000 x 1,000	JP1000100002
2	+0.000 +0.200	1,000 x 500	JP1000500002
2	+0.000 +0.200	500 x 500	JP500500002
2	+0.000 +0.200	500 x 240	JP50024002
4	+0.000 +0.250	1,000 x 1,000	JP1000100004
4	+0.000 +0.250	1,000 x 500	JP1000500004
4	+0.000 +0.250	500 x 500	JP500500004
4	+0.000 +0.250	500 x 240	JP50024004
6	+0.000 +0.300	1,000 x 1,000	JP1000100006
6	+0.000 +0.300	1,000 x 500	JP1000500006
6	+0.000 +0.300	500 x 500	JP500500006
6	+0.000 +0.300	500 x 240	JP50024006
10	+0.200 +0.900	1,000 x 610	JP100061010
10	+0.200 +0.900	500 x 610	JP50061010
10	+0.200 +0.900	500 x 300	JP50030010
15	+0.300 +1.500	1,000 x 610	JP100061015
15	+0.300 +1.500	500 x 610	JP50061015
15	+0.300 +1.500	500 x 300	JP50030015
20	+0.300 +1.500	1,000 x 610	JP100061020
20	+0.300 +1.500	500 x 610	JP50061020
20	+0.300 +1.500	500 x 300	JP50030020
25	+0.300 +1.500	1,000 x 610	JP100061025
25	+0.300 +1.500	500 x 610	JP50061025
25	+0.300 +1.500	500 x 300	JP50030025
30	+0.300 +1.500	1,000 x 610	JP100061030
30	+0.300 +1.500	500 x 610	JP50061030
30	+0.300 +1.500	500 x 300	JP50030030
40	+0.300 +1.500	1,000 x 610	JP100061040
40	+0.300 +1.500	500 x 610	JP50061040
40	+0.300 +1.500	500 x 300	JP50030040

iglide®
bar stock

iglide® bar stock - Product range


iglide® J2

Versatile and cost-effective


iglide® J3

High service life, low coefficients of friction


iglide® J4

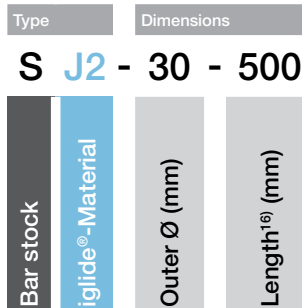
Wear resistant and cost-effective

Material properties table

General properties	Unit	iglide® J2	iglide® J3	iglide® J4
Density	g/cm ³	1.44	1.42	1.48
Color		light yellow	yellow	grey
Max. moisture absorption at +73°F/50% r.h.	% weight	0.2	0.3	0.3
Max. water absorption	% weight	1.3	1.3	1.3
Coefficient of sliding friction, dynamic against steel	μ	0.11–0.27	0.06–0.20	0.06–0.20
PV value, max. (dry)	psi · ft/min	6,600	14,000	8,600
Mechanical properties				
Modulus of elasticity	psi	522,860	391,600	390,838
Tensile strength at +68°F	psi	14,648	10,150	10,152
Compressive strength	psi	11,167	8,702	7,975
Max. recommended surface pressure (+68°F)	psi	6,670	6,527	5,075
Shore-D Hardness		n.b.	73	74
Physical and thermal properties				
Max. long term application temperature	°F	+194	+194	+194
Max. short term application temperature	°F	+230	+248	+248
Min. application temperature	°F	-58	-58	-58
Thermal conductivity	W/m · K	0.25	0.25	0.25
Coefficient of thermal expansion (at +73°F)	K ⁻¹ · 10 ⁻⁵	7	13	10
Electrical properties				
Specific volume resistance	Ωcm	> 10 ¹³	> 10 ¹²	> 10 ¹³
Surface resistance	Ω	> 10 ¹²	> 10 ¹²	> 10 ¹²

Dimensions (mm)

Ø	Lengths ¹⁶⁾	Part No.
iglide® J2		
30	100 to 1,000	SJ2-30
iglide® J3		
15	100 to 1,000	SJ3-15
20	100 to 1,000	SJ3-20
30	100 to 1,000	SJ3-30
40	100 to 1,000	SJ3-40
50	100 to 1,000	SJ3-50
60	100 to 1,000	SJ3-60
iglide® J4		
20	100 to 1,000	SJ4-20
25	100 to 1,000	SJ3-25
30	100 to 1,000	SJ4-30
40	100 to 1,000	SJ4-40
50	100 to 1,000	SJ4-50
60	100 to 1,000	SJ4-60


**Order key
for round bars**

¹⁶⁾ Minimum length 100 mm - maximum length 1 m

iglide® bar stock - Product range

 iglide®
bar stock

iglide® J200
Especially for aluminum shafts

iglide® J260
Ideal for plastic shafts

iglide® J350
For high temperatures

Material properties table

General properties	Unit	iglide® J200	iglide® J260	iglide® J350
Density	g/cm ³	1.72	1.35	1.44
Color		dark gray	yellow	yellow
Max. moisture absorption at +73 °F/50 % r.h.	% weight	0.2	0.2	0.3
Max. water absorption	% weight	0.7	0.4	1.6
Coefficient of sliding friction, dynamic against steel	μ	0.11–0.17	0.06–0.20	0.10–0.20
PV value, max. (dry)	psi · ft/min	8,600	10,000	13,000
Mechanical properties				
Modulus of elasticity	psi	406,100	319,100	290,100
Tensile strength at +68 °F	psi	8,412	8,702	7,977
Compressive strength	psi	6,237	7,252	8,702
Max. recommended surface pressure (+68 °F)	psi	3,336	5,802	8,702
Shore-D Hardness		70	77	80
Physical and thermal properties				
Max. long term application temperature	°C	+194	+248	+180
Max. short term application temperature	°C	+248	+284	+428
Min. application temperature	°C	-58	-148	-148
Thermal conductivity	W/m · K	0.24	0.24	0.24
Coefficient of thermal expansion (at +73 °F)	K ⁻¹ · 10 ⁻⁵	8	13	7
Electrical properties				
Specific volume resistance	Ωcm	> 10 ⁸	> 10 ¹²	> 10 ¹³
Surface resistance	Ω	> 10 ⁸	> 10 ¹⁰	> 10 ¹⁰

Dimensions (mm)

Ø	Lengths ¹⁶⁾	Part No.
iglide® J200		
30	100 to 1,000	SJ200-30
iglide® J260		
30	100 to 1,000	SJ260-30
60	100 to 1,000	SJ260-60
iglide® J350		
20	100 to 1,000	SJ350-20
25	100 to 1,000	SJ350-25
30	100 to 1,000	SJ350-30
35	100 to 1,000	SJ350-35
40	100 to 1,000	SJ350-40
45	100 to 1,000	SJ350-45
50	100 to 1,000	SJ350-50
55	100 to 1,000	SJ350-55
60	100 to 1,000	SJ350-60

Order key for round bars

Type	Dimensions
S	J260 - 30 - 500
Bar stock	iglide®-Material
Outer Ø (mm)	Length ¹⁶⁾ (mm)

¹⁶⁾ Minimum length 100 mm - maximum length 1 m

iglide®
bar stock

iglide® bar stock - Product range


iglide® P210

The material for high speeds at low loads


iglide® R

The low-cost material


iglide® M250

Vibration dampening

Material properties table

General properties	Unit	iglide® P210	iglide® R	iglide® M250
Density	g/cm ³	1.40	1.39	1.14
Color		yellow	dark red	charcoal
Max. moisture absorption at +73°F/50% r.h.	% weight	0.3	0.2	1.4
Max. water absorption	% weight	0.5	1.1	7.6
Coefficient of sliding friction, dynamic against steel	μ	0.07–0.19	0.09–0.25	0.18–0.40
PV value, max. (dry)	psi · ft/min	11,500	8,700	3,400
Mechanical properties				
Modulus of elasticity	psi	362,594	282,800	391,600
Tensile strength at +68°F	psi	10,150	10,150	16,240
Compressive strength	psi	7,250	9,863	7,542
Max. recommended surface pressure (+68 °F)	psi	7,250	3,336	2,901
Shore-D Hardness		75	77	79
Physical and thermal properties				
Max. long term application temperature	°F	+212	+194	+176
Max. short term application temperature	°F	+320	+230	+338
Min. application temperature	°F	-40	-58	-40
Thermal conductivity	W/m · K	0.25	0.25	0.24
Coefficient of thermal expansion (at +73 °F)	K ⁻¹ · 10 ⁻⁵	8	11	10
Electrical properties				
Specific volume resistance	Ωcm	> 10 ¹²	> 10 ¹²	> 10 ¹³
Surface resistance	Ω	> 10 ¹¹	> 10 ¹²	> 10 ¹¹

Dimensions (mm)

Ø	Lengths ¹⁶⁾	Part No.
iglide® P210		
20	100 to 1,000	SP210-20
30	100 to 1,000	SP210-30
40	100 to 1,000	SP210-40
50	100 to 1,000	SP210-50
60	100 to 1,000	SP210-60
80	100 to 1,000	SP210-80
iglide® R		
30	100 to 1,000	SR-30
40	100 to 1,000	SR-40
50	100 to 1,000	SR-50
60	100 to 1,000	SR-60
iglide® M250		
30	100 to 1,000	SM250-30


**Order key
for round bars**

Type	Dimensions
S	P210 - 30 - 500
Bar stock	iglide®-Material
Outer Ø (mm)	Length ¹⁶⁾ (mm)

¹⁶⁾ Minimum length 100 mm - maximum length 1 m

iglide® bar stock - Product range

iglide®
bar stock





iglide® T220
For the tobacco industry




iglide® UW160
For continuous use in liquid media

Material properties table			
General properties	Unit	iglide® T220	iglide® UW160
Density	g/cm ³	1.28	1.04
Color		white	grey
Max. moisture absorption at +73 °F/50% r.h.	% weight	0.3	0.1
Max. water absorption	% weight	0.5	0.1
Coefficient of sliding friction, dynamic against steel	μ	0.20–0.32	0.17–0.31
PV value, max. (dry)	psi · ft/min	8,000	0.22
Mechanical properties			
Modulus of elasticity	psi	261,100	195,655
Tensile strength at +68°F	psi	9,427	3,190
Compressive strength	psi	7,977	4,641
Max. recommended surface pressure (+68 °F)	psi	5,802	2,175
Shore-D Hardness		76	60
Physical and thermal properties			
Max. long term application temperature	°F	+212	+194
Max. short term application temperature	°F	+320	+212
Min. application temperature	°F	-40	-58
Thermal conductivity	W/m · K	0.24	0.50
Coefficient of thermal expansion (at +73 °F)	K ⁻¹ · 10 ⁻⁵	11	18
Electrical properties			
Specific volume resistance	Ωcm	> 10 ¹⁰	> 10 ¹²
Surface resistance	Ω	> 10 ¹⁰	> 10 ¹²

Dimensions (mm)

Ø	Lengths ¹⁶⁾	Part No.
 iglide® T220		
30	100 to 1,000	ST220-30
40	100 to 1,000	ST220-40
50	100 to 1,000	ST220-50
60	100 to 1,000	ST220-60
 iglide® UW160		
30	100 to 1,000	SUW160-30

¹⁶⁾ Minimum length 100 mm - maximum length 1 m

 **Order key
for round bars**

Type	Dimensions
S	T220 - 30 - 500
Bar stock	iglide®-Material
Outer Ø (mm)	Length ¹⁶⁾ (mm)

iglide®
bar stock

iglide® bar stock - Product range


iglide® L280 (W300)*

The material for arduous requirements


iglide® T500 (X)*


The chemical resistant high-temperature material

Material properties table

General properties	Unit	iglide® L280*	iglide® T500*
Density	g/cm ³	1.24	1.44
Color		yellow	black
Max. moisture absorption at +73°F/50% r.h.	% weight	1.3	0.1
Max. water absorption	% weight	6.5	0.5
Coefficient of sliding friction, dynamic against steel	μ	0.08–0.23	0.09–0.27
PV value, max. (dry)	psi · ft/min	6,600	37,700
Mechanical properties			
Modulus of elasticity	psi	507,600	1,174,800
Tensile strength at +68°F	psi	18,130	24,660
Compressive strength	psi	8,847	14,500
Max. recommended surface pressure (+68°F)	psi	8,702	21,760
Shore-D Hardness		77	85
Physical and thermal properties			
Max. long term application temperature	°F	+194	+482
Max. short term application temperature	°F	+356	+599
Min. application temperature	°F	-40	-148
Thermal conductivity	W/m · K	0.24	0.6
Coefficient of thermal expansion (at +73°F)	K ⁻¹ · 10 ⁻⁵	9	5
Electrical properties			
Specific volume resistance	Ωcm	> 10 ¹³	< 10 ⁵
Surface resistance	Ω	> 10 ¹²	< 10 ³

Dimensions (mm)

Ø	Lengths ¹⁶⁾	Part No.	Ø	Lengths ¹⁶⁾	Part No.
iglide® L280			iglide® T500		
30	100 to 1,000	SL280-30	15	100 to 1,000	ST500-15
40	100 to 1,000	SL280-40	20	100 to 1,000	ST500-20
50	100 to 1,000	SL280-50	30	100 to 1,000	ST500-30
60	100 to 1,000	SL280-60	50	100 to 1,000	ST500-50
65	100 to 1,000	SL280-65	55	100 to 1,000	ST500-55
80	100 to 1,000	SL280-80	60	100 to 1,000	ST500-60

 **Order key**
for round bars

Type	Dimensions
S	L280 - 30 - 500
Bar stock	iglide®-Material
Outer Ø (mm)	Length ¹⁶⁾ (mm)

¹⁶⁾ Minimum length 100 mm - maximum length 1 m

 *The part number X is the European equivalent of the T500 material
 and the part number W300 is the European equivalent of the L280 material

iglide® bar stock - Product range

Rapid drawing based production

iglide®
bar stock



Your requirements

<input checked="" type="checkbox"/> Maximum holding times in dry operation	<input checked="" type="checkbox"/> Low coefficients of friction	Max. static surface pressure (MPa) <input type="text" value="0"/> MPa
<input checked="" type="checkbox"/> Oil resistant	<input checked="" type="checkbox"/> High resistance to chemicals	Upper long term application temperature <input type="text" value="30"/> °C
<input checked="" type="checkbox"/> Vibration dampening	<input checked="" type="checkbox"/> Good in misalignment	Lower application temperature <input type="text" value="-10"/> °C
<input checked="" type="checkbox"/> Low moisture absorption	<input checked="" type="checkbox"/> Underwater application	
<input checked="" type="checkbox"/> FDA compatible Foodstuff	<input checked="" type="checkbox"/> Cost effective	

iglide® materials suited for you:

iglide® bearing with best stability iglide® material with good stability

iglide® bar stock expert system

Measurement	Parameter	IC-Loading	LifeTime [h]
<input checked="" type="checkbox"/> Load	static load	10000	10000
<input checked="" type="checkbox"/> Type of motion	sliding motion	10000	10000
<input checked="" type="checkbox"/> Speed	sliding speed	10000	10000
<input checked="" type="checkbox"/> Temperature	operating temp.	10000	10000
<input checked="" type="checkbox"/> Chemicals	operating temp.	10000	10000
<input checked="" type="checkbox"/> Sliding surface	operating temp.	10000	10000
<input checked="" type="checkbox"/> Housing	operating temp.	10000	10000
<input checked="" type="checkbox"/> Intermittent service	operating temp.	10000	10000
<input checked="" type="checkbox"/> Miscellaneous	operating temp.	10000	10000
<input checked="" type="checkbox"/> Wear limits	operating temp.	10000	10000

Best material: iglide®

Quick inquiry

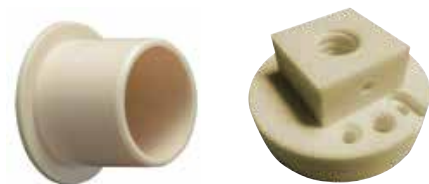
Tell us what material you would like your part made in, and upload a 3D model (preferably a STEP file).

Quantity:

3D model of your part

You can upload data up to a total volume about 10 MB

File 1:	Upload
File 2:	Upload
File 3:	Upload
File 4:	Upload
File 5:	Upload



Find & compare semi-finished products

This material finder helps you find the right iglide® material for your project with a few clicks!

► www.igus.com/barstock-finder

Calculate lifetime of semi-finished products

Quick calculation of the service life of your iglide® semi-finished product.

speedicut – rapid special part production

speedicut is the mechanical production of iglide® bar stock in line with your drawings and specifications.

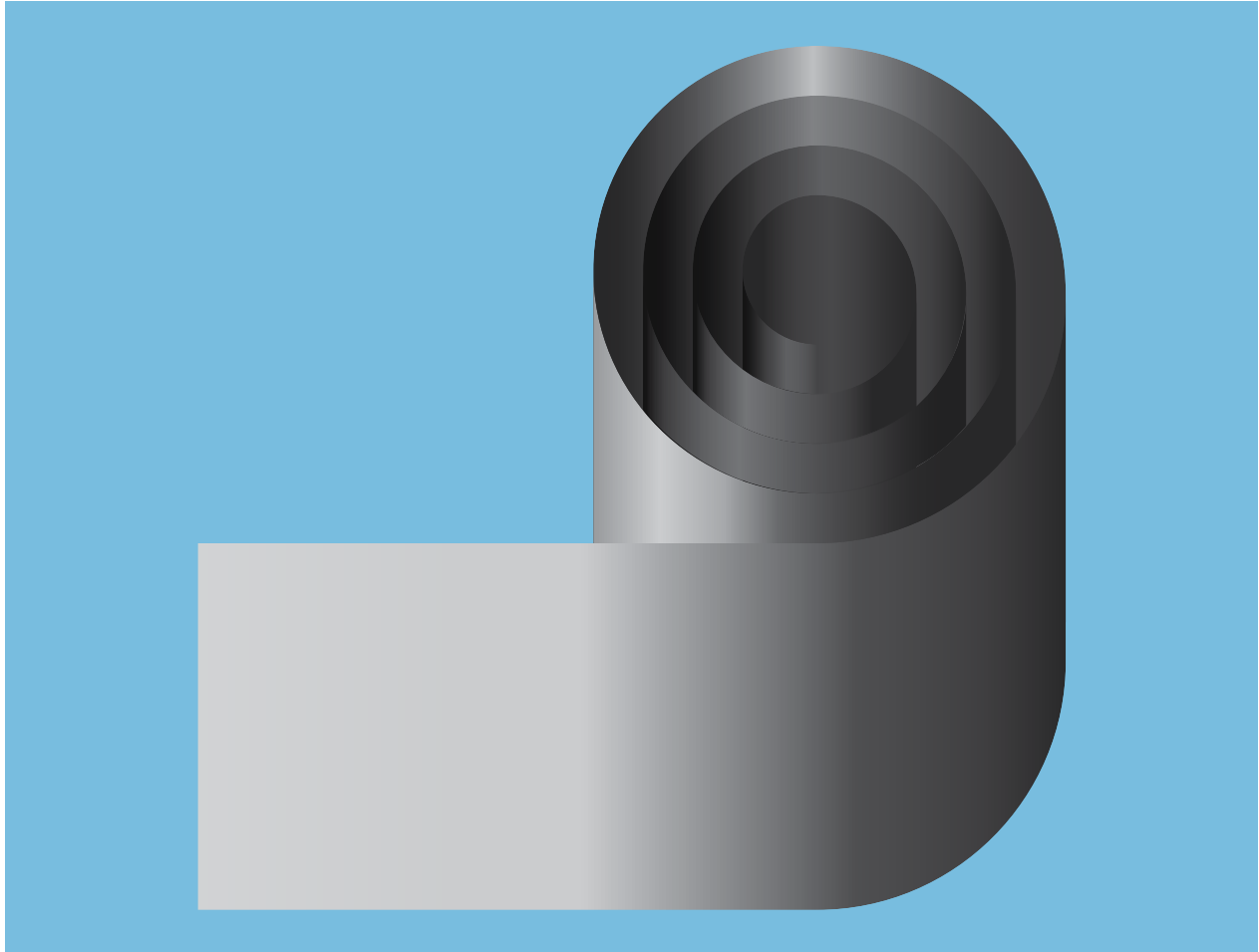
Before submitting an online request for the mechanical production of your desired geometric design, you can use the material finder or the service life calculation program to filter materials and find the right one for your application. If you would like our assistance in choosing the right material with the optimum friction and wear values, please do not hesitate to contact us.

We divide mechanical processing into two categories:

- Production of all custom geometric designs in the form of plain bearings, sliding elements and pads in line with your drawing and with the standard tolerances for plastics.
- Production of iglide® plain bearings and thrust washers in custom dimensions in line with igus® standard tolerances. You do not need to create a drawing for this type of processing.

Speed: if required, we are able to produce small quantities within a matter of days. If you need prototypes for your urgent projects extremely quickly, please contact us.

Depending on their complexity and precision, our rapid delivery service can supply parts with a delivery time of as little as 3 days.

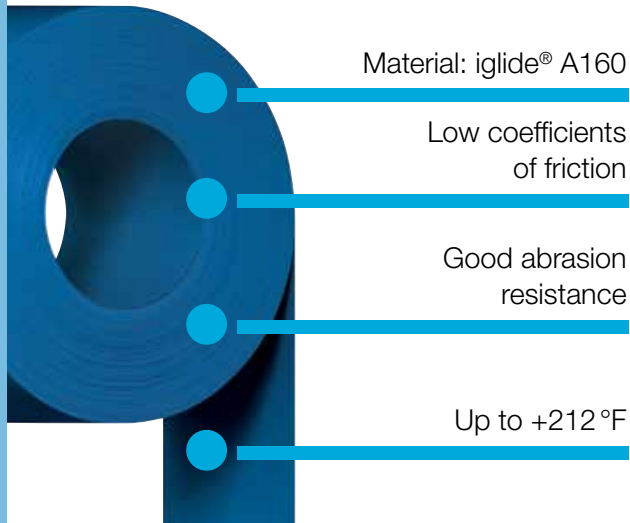


iglide[®] Tribo-Tape

- Choice of 3 materials
- Self-lubricating and maintenance-free
- Wear resistant
- Easy to cut
- Adhesive version available
- Only 0.5 mm thickness

iglide® Tribo-Tape - Advantages

Multi-purpose: First iglide® Tribo-Tape

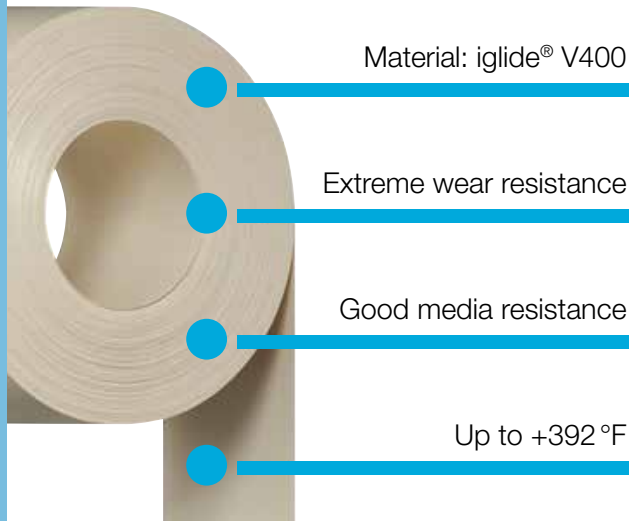


Material: iglide® A160

Low coefficients
of friction

Good abrasion
resistance

Up to +212 °F

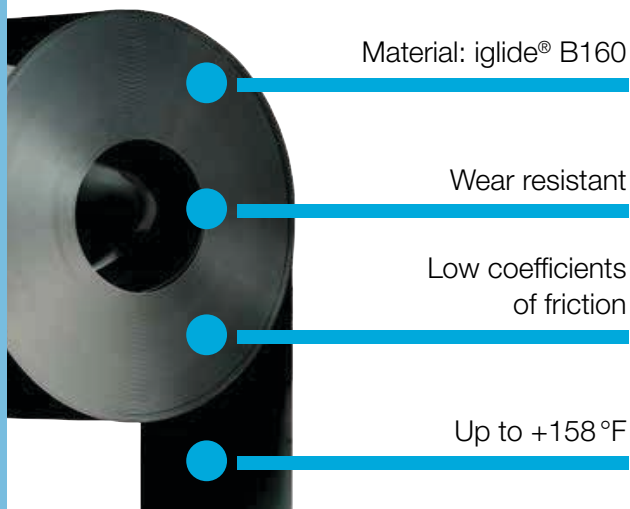


Material: iglide® V400

Extreme wear resistance

Good media resistance

Up to +392 °F



Material: iglide® B160

Wear resistant

Low coefficients
of friction

Up to +158 °F

iglide® off the reel: Tribo-Tape

iglide® Tribo-Tape is designed for lining areas of wear and where frequent maintenance is required, an example is for machine beds etc. At just 0.5 mm thick (0.65 mm including the adhesive back), the space requirement is extremely low. The ease of use (the tape can simply be cut using scissors) and optional self-adhesive back open up almost endless possibilities for the product's use.

- Self-lubricating and maintenance free
- Easy to cut
- Adhesive version available
- For compact areas
- With or without self-adhesive back

Typical industries and applications

- Mechanical engineering ● Material handling
- Jigs and fixtures ● Assembly technology, etc.



Product film

► www.igus.com/tape-film



Depending on material:

iglide® A160:	-4°F up to	+158°F
iglide® V400:	-58°F up to	+392°F
iglide® B160:	-58°F up to	+158°F



3 Materials

Film width: 20, 50, 100, 120, 500
Thickness: 0.5 mm (100 & 120 mm width)
1.0 mm (500 mm width)



Available from stock

Detailed information about delivery time online.

iglide® Tribo-Tape - Technical data

Material properties table

Material properties table				
General properties	Unit	iglide® A160	iglide® V400	iglide® B160
Density	g/cm ³	1.00	1.51	1.00
Color		blue	white	black
Max. moisture absorption at +73°F/50% r.h.	% weight	0.1	0.1	< 0.1
Max. water absorption	% weight	0.1	0.2	< 0.1
Coefficient of sliding friction, dynamic against steel	μ	0.09–0.19	0.15–0.20	0.13–0.20
Mechanical properties				
Modulus of elasticity	psi	166,938	652,700	123,600
Tensile strength at +68°F	psi	2,755	13,780	2,031
Shore-D Hardness		60	74	59
Physical and thermal properties				
Max. long term application temperature	°F	+194	+158	+158
Min. application temperature	°F	-58	-58	-58
Thermal conductivity	W/m · K	0.30	0.24	0.32
Coefficient of thermal expansion (at +73 °F)	K ⁻¹ · 10 ⁻⁵	11	3	11
Electrical properties				
Specific volume resistance	Ωcm	> 10 ¹²	> 10 ¹²	> 10 ¹²
Surface resistance	Ω	> 10 ¹²	> 10 ¹²	> 10 ¹²

Material resistance (at +68°F)

Chemical resistance	iglide® A160	iglide® V400	iglide® B160
Alcohols	+	+	+
Hydrocarbons	+	+	+
Greases, oils without additives	+	+	+
Fuels	+ to 0	+	+ to 0
Diluted acids	+	+	+
Strong acids	+	+	+
Diluted alkalines	+	+	+
Strong alkalines	+	-	+
Radiation Resistance [Gy] up to	1 · 10 ⁵	2 · 10 ⁴	1 · 10 ⁵

+ resistant 0 conditionally resistant - not resistant

iglide®
tribo-tape

iglide® Tribo-Tape - Product range



Order key

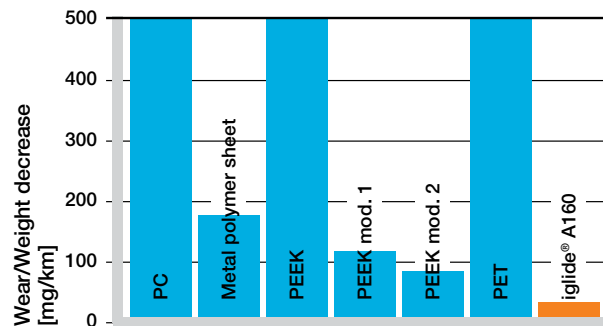
Type	Dimensions	Options:
A160 T - 5 - 100 - G1		iglide® V400: up to +392 °F
iglide® material A160, B160, V400	Thickness [mm] 5 = 0.5 mm	iglide® A160: up to +158 °F
Tape	Width [mm]	iglide® B160: up to +158 °F
	Adhesive back G1 = Standard G2 = High Temp	

The low cost **iglide® A160 Tribo-Tape** has very high wear resistance compared to similar, thin plastic films.

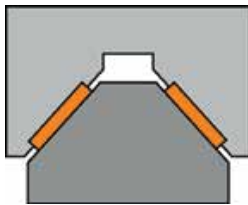
Black iglide® B160 Tribo-Tape material for stressed areas

Especially where the iglide® Tribo-Tape is a visible part, the new black option now offers even more design freedom. Furthermore the wear resistance compared to variants made of iglide® A160 has been improved once again.

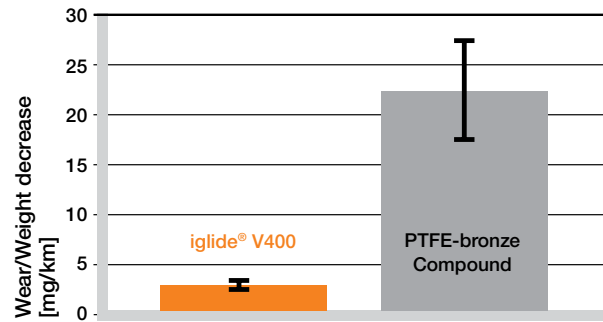
iglide® V400 tape is not only highly wear resistant but also extremely media and temperature resistant. In fact, it has been proven in tests to be up to 10 times more wear resistant than special products for machine beds.



Rotating wear against stainless steel pin (1.4305)
F = 35 N, v = 0.5 m/min



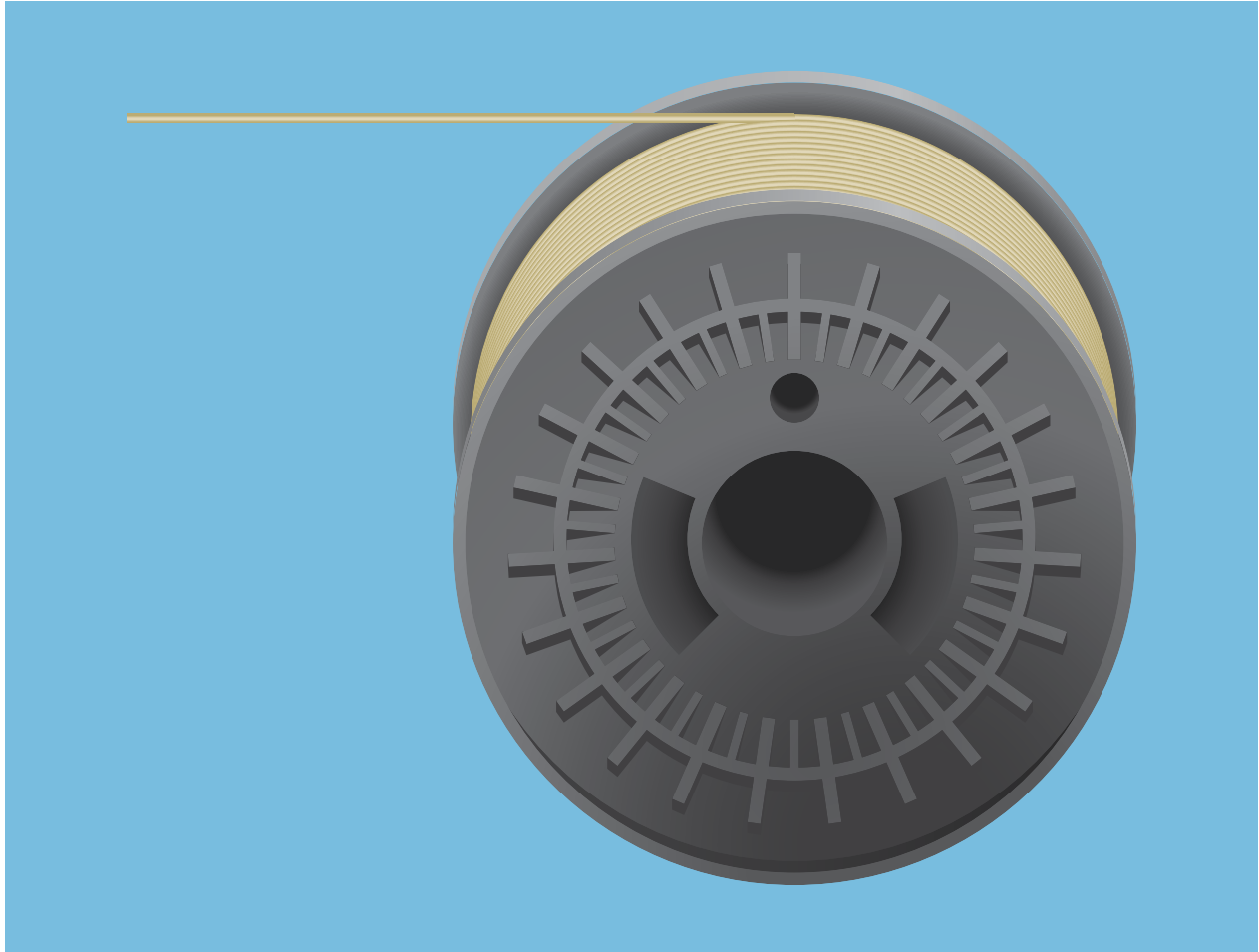
Application example for iglide® Tribo-Tape made from iglide® V400



Linear wear against stainless steel pin (1.4305)
F = 35 N, v = 0.5 m/min



A160 Part No.	Widths available [mm]	Widths available with G1 adhesive [mm]	Widths available with G2 adhesive [mm]
A160T-5-	20, 50, 100, 120, 500	20, 50, 100	50
A160-T-1.0-	500	—	500
B160 Part No.			
B160T-5-	20, 50, 100, 120, 500	—	20, 50, 100, 500
V400 Part No.			
V400T-5-	120	—	120

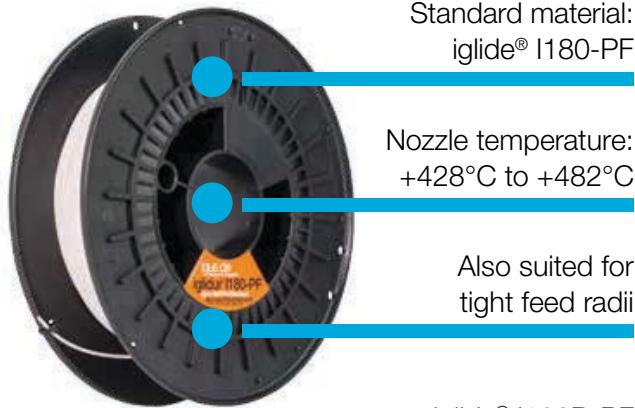


iglide® Tribo-Filament for 3D printing

- Choice of 4 materials
- Suitable for commercially available 3D printers using FDM process
- 1.75 mm and 3 mm thickness in stock
- Up to 50 times more abrasion resistant than conventional 3D print materials

iglide® Tribo-Filament - Advantages

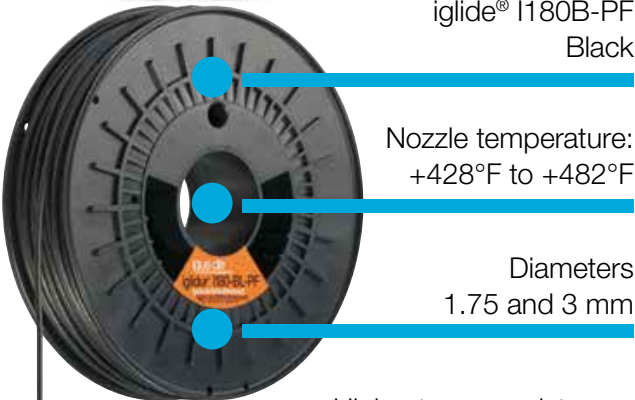
Print your own real iglide® products



Standard material:
iglide® I180-PF

Nozzle temperature:
+428°C to +482°C

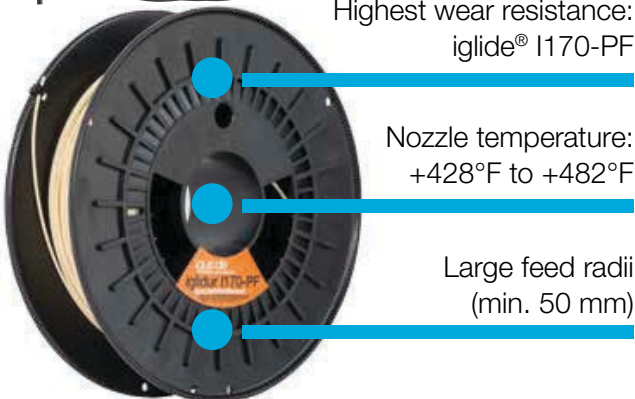
Also suited for
tight feed radii



iglide® I180B-PF
Black

Nozzle temperature:
+428°F to +482°F

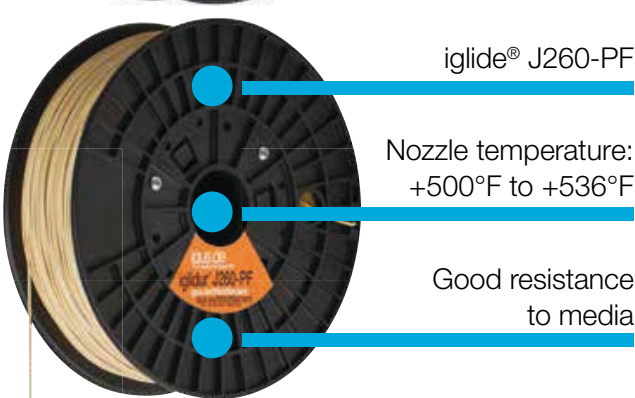
Diameters
1.75 and 3 mm



Highest wear resistance:
iglide® I170-PF

Nozzle temperature:
+428°F to +482°F

Large feed radii
(min. 50 mm)



iglide® J260-PF

Nozzle temperature:
+500°F to +536°F

Good resistance
to media

iglide® Tribo-Filament for 3D printing – Wear resistant


The materials that have been specially developed for 3D printing are up to 50 times more abrasion-resistant than conventional 3D print materials. This provides a new degree of freedom when designing gliding components subject to wear: custom parts and prototypes from a 3D printer with a tested service life.


- Wear-resistant
- Suitable for commercially available 3D printers using FDM process
- 1.75 mm and 3 mm thickness


Typical industries and applications

- Prototype constructions
- Small batches
- Construction tests, etc.

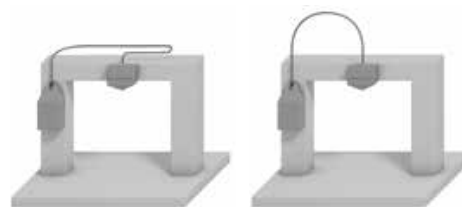
 More information about 3D printing
➤ www.igus.com/3D-printer

 Depending on material:
iglide® I180-PF: -40°F up to +176°F
iglide® I180B-PF: -40°F up to +176°F
iglide® I170-PF: -40°F up to +167°F
iglide® J260-PF: -148°F up to +248°F

 4 Materials: 1.75 mm and 3 mm
(for iglide® I180-PF & I180B-PF)

 Available from stock
Detailed information about delivery time online.

 Detailed information about processing
instructions ➤ www.igus.com/tribofilament



iglide® I180-PF
iglide® I180B-PF

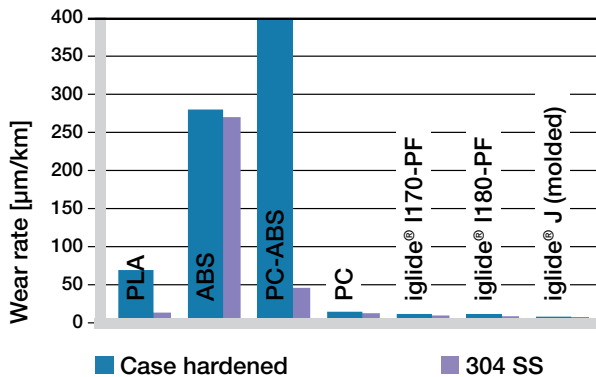
iglide® I170-PF

iglide® Tribo-Filament - Technical data

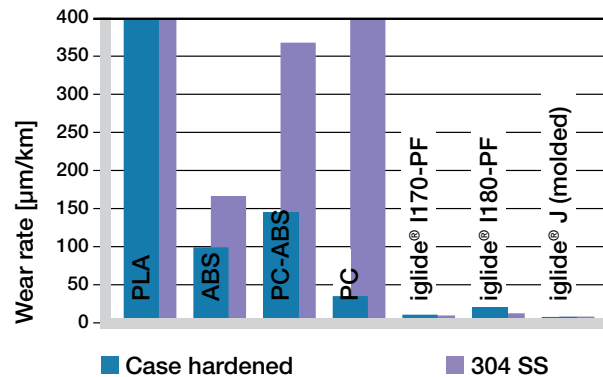
Material properties table

General properties	Unit	iglide® I180-PF	iglide® I180B-PF	iglide® I170-PF	iglide® J260-PF	Testing method
Density	g/cm ³	1.21	1.21	1.21	1.35	
Color		white	black	yellow	yellow	
Max. moisture absorption at +73°F/50% r.h.	% weight	0.3	0.3	0.5	0.2	DIN 53495
Max. water absorption	% weight	0.9	0.9	1.6	0.4	
Mechanical properties						
Modulus of elasticity	psi	145,000	145,000	145,000	319,100	DIN 53457
Tensile strength at +68°F	psi	6,382	6,382	4,786	8,702	DIN 53452
Shore-D hardness		66	66	64	77	DIN 53505
Physical and thermal properties						
Max. long term application temperature	°F	+176	+176	+167	+248	
Max. short term application temperature	°F	+194	+194	+185	+284	
Min. application temperature	°F	-40	-40	-40	-148	
Electrical properties						
Specific volume resistance	Ωcm	> 10 ¹²	> 10 ¹²	> 10 ¹²	> 10 ¹²	DIN IEC 93
Surface resistance	Ω	> 10 ¹¹	> 10 ¹¹	> 10 ¹¹	> 10 ¹⁰	DIN 53482

Table 01: Material properties table



Wear pivoting: $v = 1.97$ fpm; $p = 145$ psi; $\beta = 60^\circ$



Wear linear: $v = 1.97$ fpm; $p = 145$ psi; $l = 5$ mm

Wear

The iglide® Tribo-Filaments are up to 50 times more wear resistant than conventional materials (PLA/ABS) for 3D printing. The highest level of Tribo-Filament wear resistance is achieved with iglide® I170-PF and is very similar to that of injection molded bearings under low to medium loads. Even the wear rate of iglide® I180-PF components is far superior to that of conventional 3D printing materials. They are also easier to process than iglide® I170-PF.

iglide®
tribo-
filament

iglide® Tribo-Filament - Product range



iglide® I180-PF

iglide® I180B-PF

iglide® I170-PF

iglide® J260-PF

iglide® I180/I180B – Flexible


- Nozzle temperature:
+428°F up to +482 °F
- Print bed temperature:
+194°F up to +230 °F
- Suited for tight feed radii

iglide® I170 – Highest wear resistance

- Nozzle temperature:
+428°F up to +482 °F
- Print bed temperature:
+194°F up to +230 °F
- Large material feed radii (R min. 50 mm)

iglide® J260 – Highest temperature


- Nozzle temperature:
+500°F up to +536 °F
- Print bed temperature:
+212°F up to +266 °F
- Large material feed radii (R min. 50 mm)

 Filament on a spool part no.
I180-1.75-250

I180-3.00-250

I180-1.75-750


I180-3.00-750

 Filament on a spool part no.
I170-1.75-250

I170-3.00-250

I170-1.75-750

I170-3.00-750

 Filament on a spool part no.
J260-1.75-250

J260-3.00-250

Processing instructions

iglide® Tribo-Filaments can be processed on any 3D printer that is equipped with a heated print bed on which temperatures are adjustable. The same method to adhere ABS filaments to the printer bed can then also be used for iglide® filaments. Examples: glass taped with blue tape or kapton tape at a print bed temperature of +194°F up to +230 °F. iglide® I170-PF is harder to process than iglide® I180-PF. The complete processing instructions are available online ► www.igus.com/tribofilament



- Good ventilation should be provided during processing
- When heated above +572 °F, hazardous fumes are produced
- Complete processing instructions online

Spool

iglide® Tribo-Filaments weighing 250g are wound onto a spool with an outer diameter of 105 mm, a width of 55 mm. The inner diameter is 55 mm.

Test kits with 25g filament are also available; this is not wound onto a spool.



Order key

Tribo-Filament

Diameter

Weight

I180-PF- 0175 -0250

iglide® material

Tribo-Filament

Ø [mm · 100]

Spool weight [g]