

Top five – most popular



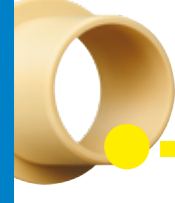
The general purpose bearing:
The most sold iglidur® bearing worldwide – iglidur® G
► From page 83



The Fast and Slow Motion Specialist:
Low friction, low wear – iglidur® J
► From page 99



Thick and tough:
Excellent vibration dampening – iglidur® M250
► From page 111



The marathon runner:
Low wear on all shafts – iglidur® W300
► From page 121



The high-tech problem solver:
High temperature and chemical resistance – iglidur® X
► From page 133

Our standard bearings with large range from stock

You can use one of our five standard materials for almost all applications with non-lubricated, dry-running bearings. Together they cover a huge range from extremely dirt-accumulating applications (iglidur® M250) up to ambient conditions that include contact with chemicals and +250 °C (iglidur® X). iglidur® G is the best seller that is a cut above the average in almost all disciplines. In total there are more than 2,000 dimensions immediately available from stock. For all those who want to find a suitable bearing with little effort, for the "casual buyer" and for all those who place value on the greatest possible variety of dimensions from a quantity of 1 piece.

- Lubrication and maintenance free
- Low weight
- Good price / performance ratio
- Predictable service life

Online product finder
► www.igus.eu/iglidur-finder

max. +250 °C
min. -100 °C

5 materials
Ø 1–195 mm

Inch dimensions available
► From page 1183

Available from stock
Detailed information about delivery time online.

Top five – most popular



A special geometry adapted to the centrifugal arm results in a significant reduction of processing costs, and this factor added to the high resistance to wear and freedom from maintenance forms the principle reason for using iglidur® bearings.



iglidur® G is generally recommended whenever an economical allround bearing is required, which withstands extremely high loads and works in low to medium surface speeds.



As iglidur® plain bearings have a long service life, and in addition need not be lubricated and costs only a fraction compared to conventional bearings, 90 % of the costs could be saved.



Eight different igus® plain bearings are fitted in the pump and produce the various pivoting and linear motions in a durable and cost-effective manner.

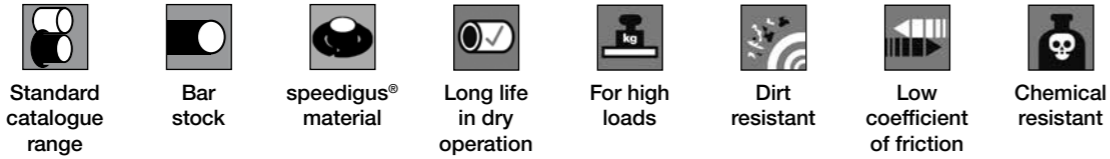


Save weight: The igus® polymer bearings recommend themselves by their low mass and ideal mechanical properties.

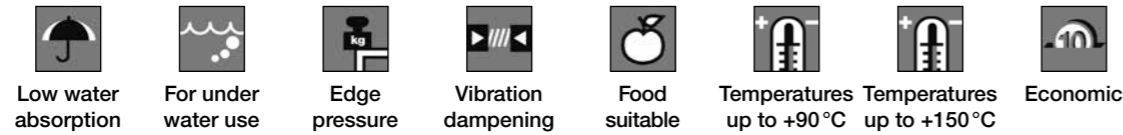


The availability of the application even at +100 °C temperatures was guaranteed by the application of plastic plain bearings made from iglidur® X.

Top five – most popular

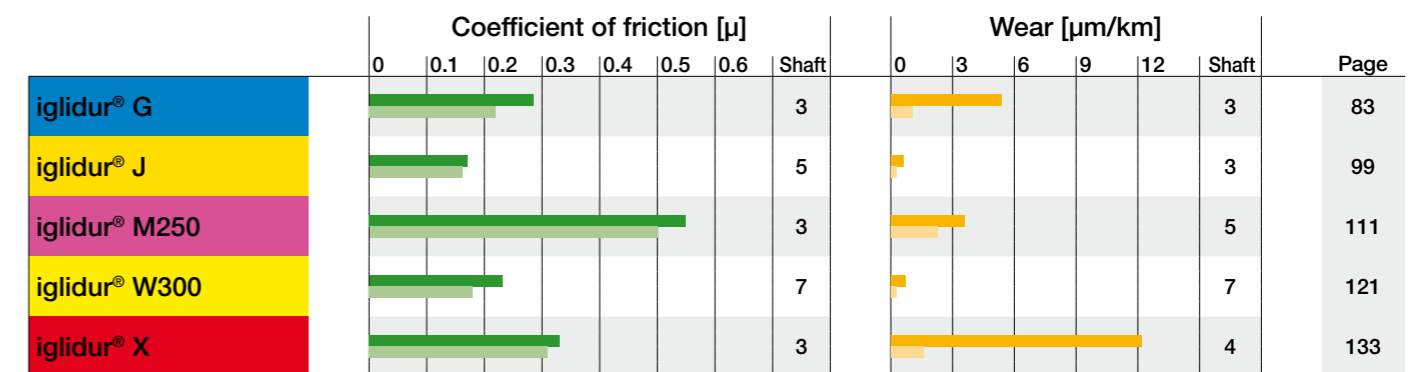
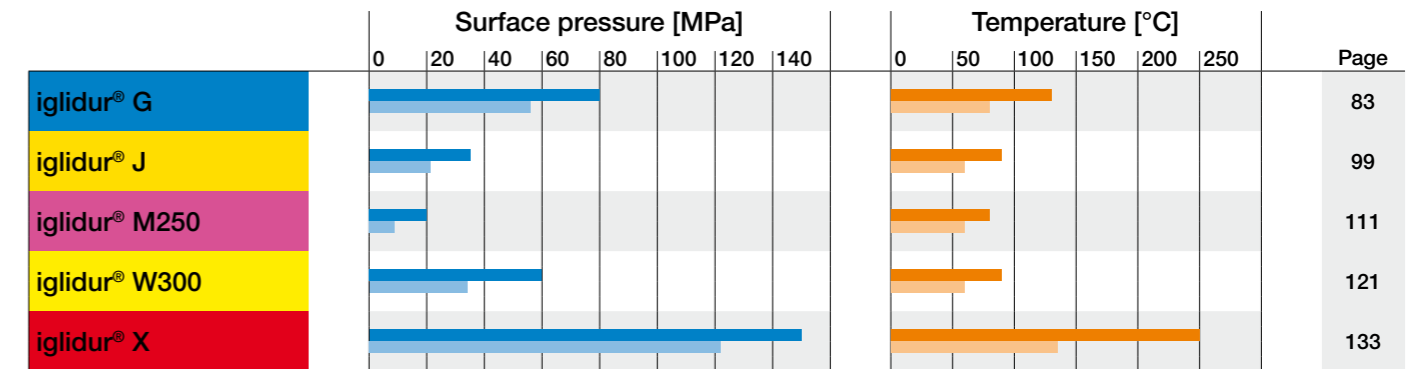


	Standard catalogue range	Bar stock	speedigus® material	Long life in dry operation	For high loads	Dirt resistant	Low coefficient of friction	Chemical resistant
iglidur® G	●		●	●	●	●		
iglidur® J	●	●	●	●			●	
iglidur® M250	●		●	●		●		
iglidur® W300	●	●	●	●		●	●	
iglidur® X	●	●	●	●	●			●



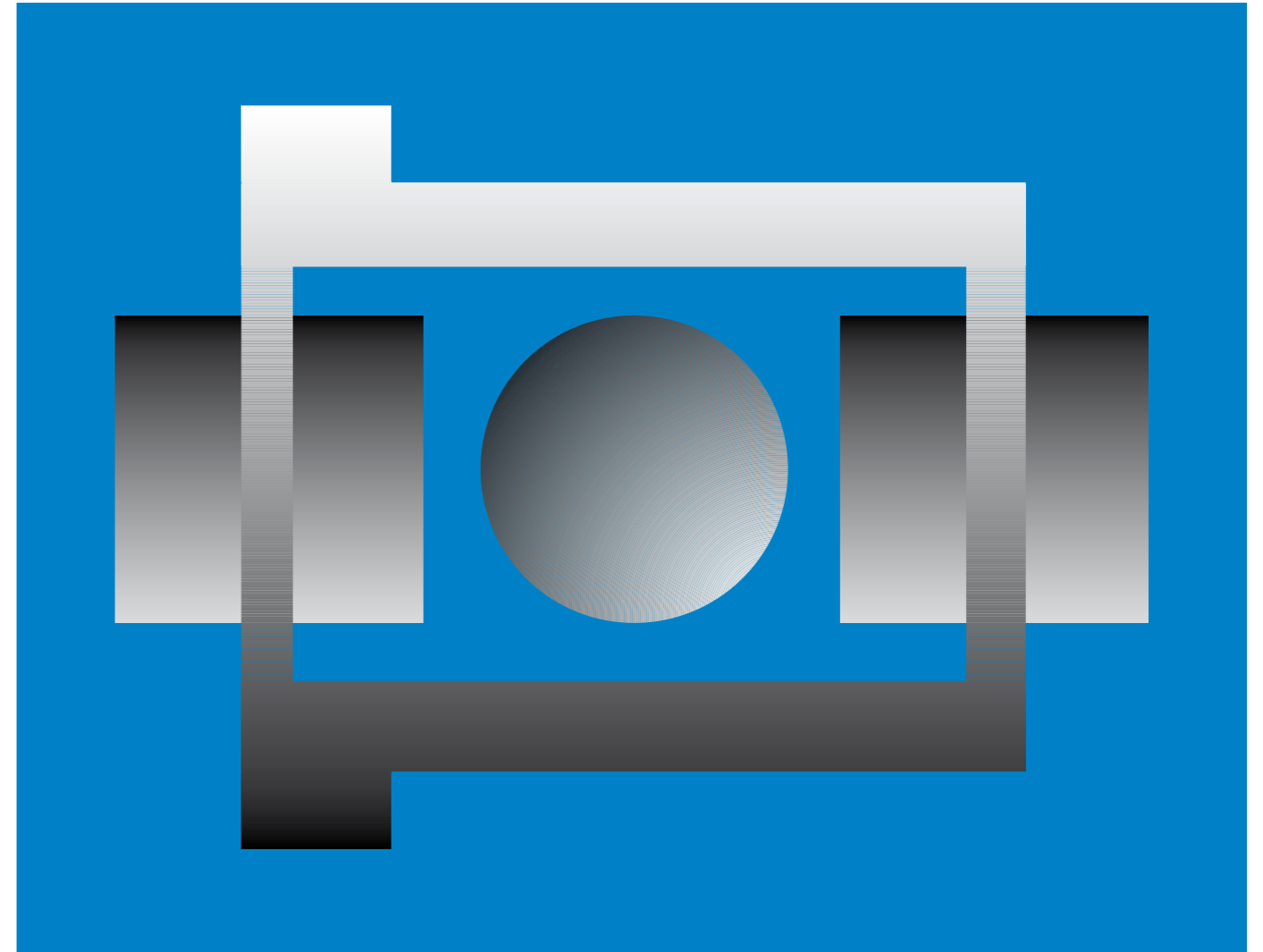
	Low water absorption	For under water use	Edge pressure	Vibration dampening	Food suitable	Temperatures up to +90°C	Temperatures up to +150°C	Economic
iglidur® G						●		●
iglidur® J	●		●			●		●
iglidur® M250			●	●		●		●
iglidur® W300			●			●		●
iglidur® X	●	●				●	●	

Top five – most popular



i Shaft material:

1 = Cf53	3 = Alu. hc	5 = St37	7 = X90
2 = Cf53, Hard chromed	4 = Free-cutting steel	6 = V2A	



The general purpose bearing – iglidur® G: the most sold iglidur® bearing worldwide

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



iglidur® G bearings cover an extremely wide range of different requirements – they are truly "all round". 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 to use it?

- Economical all-round performance bearing
- For low to average surface speeds
- When the bearing needs to run on different shaft materials
- For oscillating and rotational movements



When not to use it?

- When mechanical reaming of the wall surface is necessary
 - ▶ iglidur® M250, page 111
- When the highest wear resistance is required
 - ▶ iglidur® W300, page 121
- When universal chemical resistance is required
 - ▶ iglidur® X, page 133
- If temperatures are constantly higher than +130 °C
 - ▶ iglidur® H, page 283
 - ▶ iglidur® X, page 133
 - ▶ iglidur® H370, page 299
- For underwater use
 - ▶ iglidur® H370, page 299



Available from stock

Detailed information about delivery time online.



max. +130 °C

min. -40 °C



Block pricing online

No minimum order value. From batch size 1



Ø 1.5–195 mm

more dimensions on request



Inch dimensions available

▶ From page 1183



Typical application areas

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

Material properties table

General properties	Unit	iglidur® G	Testing method
Density	g/cm ³	1.46	
Colour		dark grey	
Max. moisture absorption at +23 °C/50 % r.h.	% weight	0.7	DIN 53495
Max. water absorption	% weight	4.0	
Coefficient of sliding friction, dynamic against steel	μ	0.08–0.15	
pv value, max. (dry)	MPa · m/s	0.42	
Mechanical properties			
Modulus of elasticity	MPa	7,800	DIN 53457
Tensile strength at +20 °C	MPa	210	DIN 53452
Compressive strength	MPa	78	
Max. recommended surface pressure (+20 °C)	MPa	80	
Shore-D hardness		81	DIN 53505
Physical and thermal properties			
Max. long term application temperature	°C	+130	
Max. short term application temperature	°C	+220	
Min. application temperature	°C	-40	
Thermal conductivity	W/m · K	0.24	ASTM C 177
Coefficient of thermal expansion (at +23 °C)	K ⁻¹ · 10 ⁻⁵	9	DIN 53752
Electrical properties			
Specific volume resistance	Ωcm	> 10 ¹³	DIN IEC 93
Surface resistance	Ω	> 10 ¹¹	DIN 53482

Table 01: Material properties table

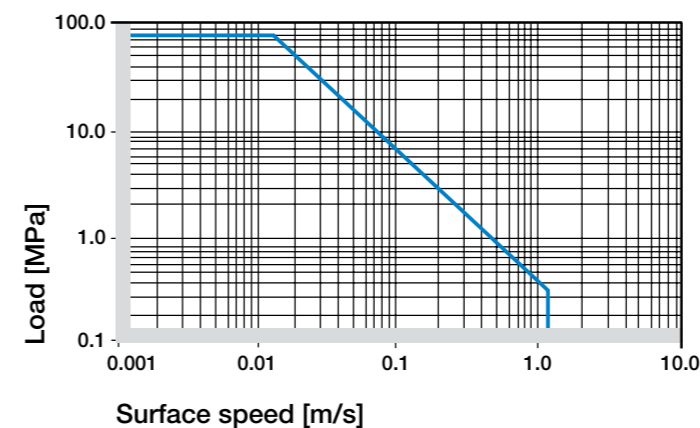


Diagram 01: Permissible pv values for iglidur® G bearings with a wall thickness of 1 mm dry running against a steel shaft, at +20 °C, mounted in a steel housing

Moisture absorption

The moisture absorption of iglidur® G 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.

▶ Diagram, www.igus.eu/g-moisture

Vacuum

iglidur® G plain bearings outgas in a vacuum. Use in vacuum is only possible with dehumidified bearings.

Radiation resistance

Plain bearings made from iglidur® G are resistant to radiation up to an intensity of 3 · 10² Gy.

UV resistance

iglidur® G plain bearings are permanently resistant to UV radiation.

Medium	Resistance
Alcohol	+ to 0
Hydrocarbons	+
Greases, oils without additives	+
Fuels	+
Diluted acids	0 to -
Strong acids	-
Diluted alkalines	+
Strong alkalines	0

+ resistant 0 conditionally resistant - not resistant
All data given at room temperature [+20 °C]

Table 02: Chemical resistance

▶ Chemical table, page 1226

iglidur® G is the decathlete among iglidur® materials. It performs exceedingly well in all technical disciplines and is the classic all-rounder, primarily with respect to the overall general, mechanical, thermal and tribological specifications.

Mechanical properties

With increasing temperatures, the compressive strength of iglidur® G plain bearings decreases. The diagram 02 shows this inverse relationship. However, at the longterm maximum temperature of +130 °C the permissible surface pressure is almost 35 MPa. The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this.

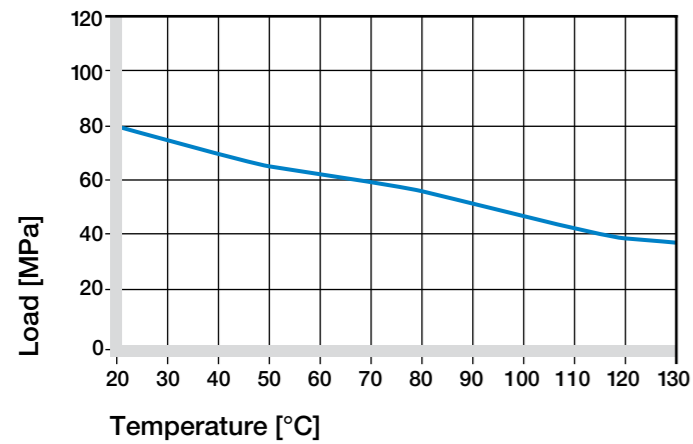


Diagram 02: Recommended maximum surface pressure of as a function of temperature (80 MPa at +20 °C)

Diagram 03 shows the elastic deformation of iglidur® G at radial loads. The plastic deformation is minimal up to a pressure of approximately 100 MPa. However, it is also dependent on the service time.

► Surface pressure, page 63

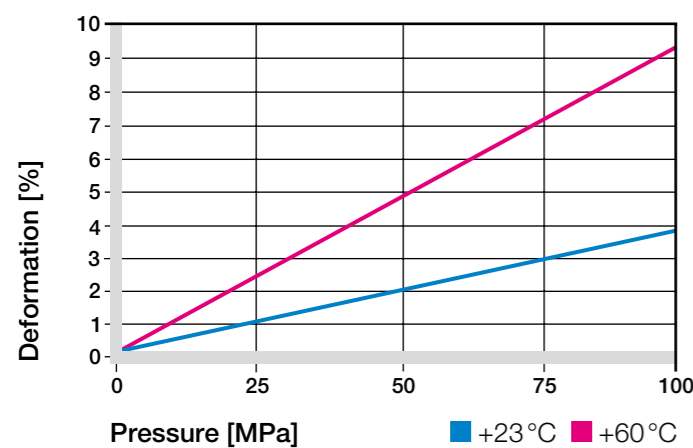


Diagram 03: Deformation under pressure and temperature

Permissible surface speeds

iglidur® G has been developed for low to medium surface speeds. The maximum values shown in table 03 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 65

m/s	Rotating	Oscillating	Linear
Constant	1	0.7	4
Short term	2	1.4	5

Table 03: Maximum surface speeds

Temperatures

The ambient temperatures greatly influence the wear performance of plastic bearings. 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 +120 °C. At temperatures over +80 °C an additional securing is required.

► Application temperatures, page 66
► Additional securing, page 67

Friction and wear

Similar to wear resistance, the coefficient of friction μ also changes with the speed and load (diagrams 04 and 05).

► Coefficients of friction and surfaces, page 68
► Wear resistance, page 69

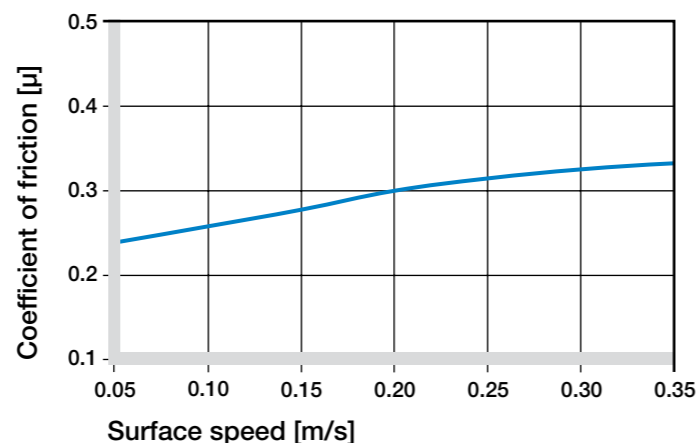


Diagram 04: Coefficient of friction as a function of the surface speed, p = 0.75 MPa

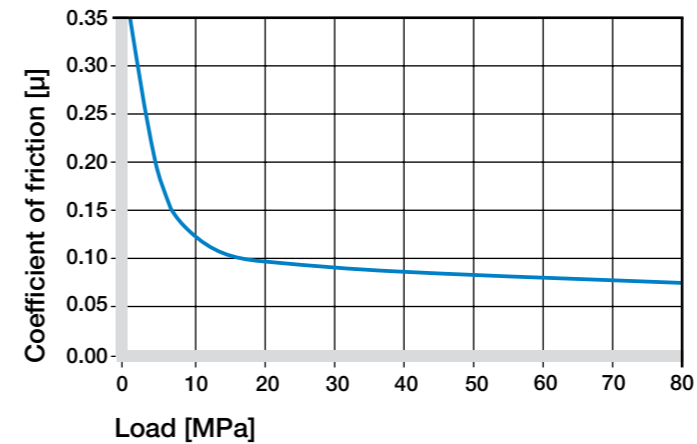


Diagram 05: Coefficient of friction as a function of the pressure, v = 0.01 m/s

Shaft materials

Friction and wear are to a large extent also highly dependant on the shaft materials. Shafts that are too smooth, increase both the coefficient of friction and the wear of the bearing. For iglidur® G a ground surface with an average roughness Ra = 0.8 μm is recommended. Diagram 06 shows results of testing different shaft materials with plain bearings made from iglidur® G. 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 2 MPa it is important to recognise that the wear rate (the gradient of the curves) clearly decreases with the hard shaft materials. If the shaft material you plan to use is not contained in this list, please contact us.

► Shaft materials, page 71

iglidur® G	Dry	Greases	Oil	Water
C. o. f. μ	0.08–0.15	0.09	0.04	0.04

Table 04: Coefficient of friction against steel (Ra = 1 μm, 50 HRC)

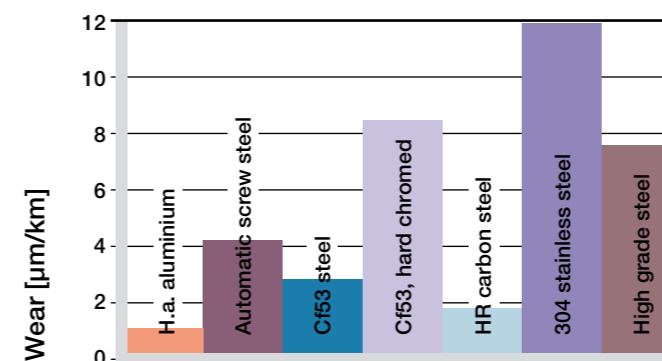


Diagram 06: Wear, rotating with different shaft materials, p = 1 MPa, v = 0.3 m/s

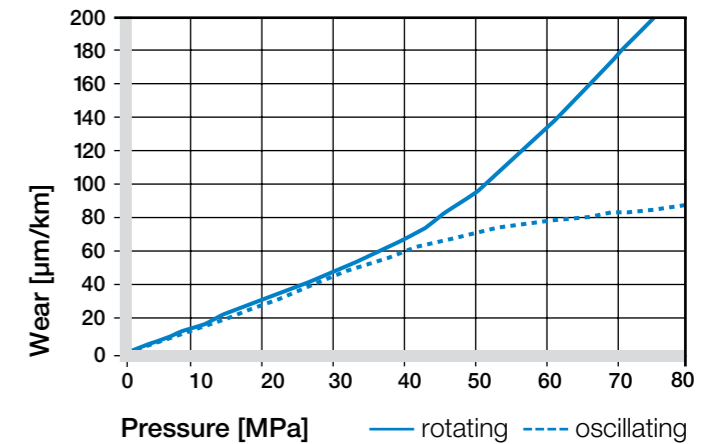


Diagram 07: Wear for oscillating and rotating applications with shaft material Cf53 hardened and ground steel, as a function of the pressure

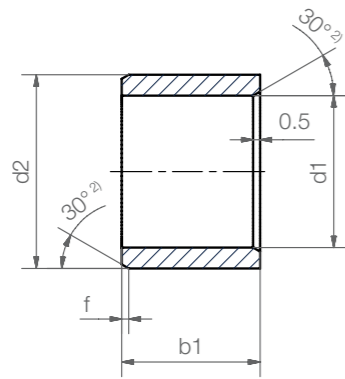
Installation tolerances

iglidur® G plain bearings are standard bearings for shafts with h-tolerance (recommended minimum h9). The bearings are designed for pressfit into a housing machined to a H7 tolerance. After being assembled into a nominal size housing, in standard cases the inner diameter automatically adjusts to the E10 tolerances. For particular dimensions the tolerance differs depending on the wall thickness (please see product range table).

► Testing methods, page 75

Diameter d1 [mm]	Shaft h9 [mm]	iglidur® G E10 [mm]	Housing H7 [mm]
up to 3	0–0.025	+0.014 +0.054	0 +0.010
> 3 to 6	0–0.030	+0.020 +0.068	0 +0.012
> 6 to 10	0–0.036	+0.025 +0.083	0 +0.015
> 10 to 18	0–0.043	+0.032 +0.102	0 +0.018
> 18 to 30	0–0.052	+0.040 +0.124	0 +0.021
> 30 to 50	0–0.062	+0.050 +0.150	0 +0.025
> 50 to 80	0–0.074	+0.060 +0.180	0 +0.030
> 80 to 120	0–0.087	+0.072 +0.212	0 +0.035
>120 to 180	0–0.100	+0.085 +0.245	0 +0.040

Table 05: Important tolerances for plain bearings according to ISO 3547-1 after pressfit



Order key

Type	Dimensions
G S M	-0103-02
iglidur® material	
Form S	
Metric	
Inner-Ø d1 [mm]	
Outer-Ø d2 [mm]	
Length b1 [mm]	



Dimensions according to ISO 3547-1 and special dimensions

²⁾ thickness < 1 mm, chamfer = 20°

Chamfer in relation to the d1

d1 [mm]:	Ø 1-6	Ø 6-12	Ø 12-30	Ø > 30
f [mm]:	0.3	0.5	0.8	1.2

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
1.5		3.0	2.0	GSM-0103-02
2.0		3.5	3.0	GSM-0203-03
2.5	+0.014	4.5	5.0	GSM-02504-05
3.0	+0.054	4.5	3.0	GSM-0304-03
3.0		4.5	5.0	GSM-0304-05
3.0		4.5	6.0	GSM-0304-06
4.0		5.5	4.0	GSM-0405-04
4.0	+0.020	5.5	6.0	GSM-0405-06
4.5	+0.068	6.0	8.0	GSM-0406-08
4.0		7.0	5.5	GSM-0407-05
5.0		6.0	4.6	GSM-0506-046
5.0	+0.010	6.0	5.0	GSM-0506-05
5.0	+0.040	6.0	7.0	GSM-0506-07
5.0		7.0	5.0	GSM-0507-05
5.0	+0.020	7.0	7.0	GSM-0507-07
5.0	+0.068	7.0	8.0	GSM-0507-08
5.0		7.0	10.0	GSM-0507-10
6.0		7.0	6.0	GSM-0607-06
6.0		7.0	12.0	GSM-0607-12
6.0	+0.010	7.0	17.0	GSM-0607-17
6.0	+0.040	7.0	17.5	GSM-0607-17.5
6.0		7.0	19.0	GSM-0607-19
6.0		8.0	1.5	GSM-0608-015
6.0		8.0	2.5	GSM-0608-025
6.0	+0.020	8.0	3.0	GSM-0608-03
6.0	+0.068	8.0	4.0	GSM-0608-04
6.0		8.0	5.0	GSM-0608-05
6.0		8.0	5.5	GSM-0608-055

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
6.0		8.0	6.0	GSM-0608-06
6.0		8.0	8.0	GSM-0608-08
6.0	+0.020	8.0	9.5	GSM-0608-09
6.0	+0.068	8.0	10.0	GSM-0608-10
6.0		8.0	11.8	GSM-0608-11
6.0		8.0	13.8	GSM-0608-13
7.0	+0.013	8.0	10.0	GSM-0708-10
7.0	+0.049	8.0	19.0	GSM-0708-19
7.0		9.0	8.0	GSM-0709-08
7.0	+0.025	9.0	9.0	GSM-0709-09
7.0	+0.083	9.0	10.0	GSM-0709-10
7.0		9.0	12.0	GSM-0709-12
8.0		9.0	5.0	GSM-0809-05
8.0	+0.013	9.0	6.0	GSM-0809-06
8.0	+0.049	9.0	8.0	GSM-0809-08
8.0		9.0	12.0	GSM-0809-12
8.0		10.0	5.0	GSM-0810-05
8.0		10.0	6.0	GSM-0810-06
8.0		10.0	6.8	GSM-0810-07
8.0		10.0	8.0	GSM-0810-08
8.0		10.0	10.0	GSM-0810-10
8.0	+0.025	10.0	12.0	GSM-0810-12
8.0	+0.083	10.0	13.8	GSM-0810-13
8.0		10.0	14.0	GSM-0810-14
8.0		10.0	15.0	GSM-0810-15
8.0		10.0	16.0	GSM-0810-16
8.0		10.0	18.0	GSM-0810-18
8.0		10.0	20.0	GSM-0810-20

³⁾ after pressfit. Testing methods ► Page 75

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
8.0	+0.025	10.0	22.0	GSM-0810-22
8.0	+0.083	10.1	25.0	GSM-0810-25
8.0	+0.040	12.0	9.0	GSM-0812-09
8.0	+0.130			
9.0	+0.013	10.0	12.0	GSM-0910-12
9.0	+0.049	10.0	16.0	GSM-0910-16
9.0	+0.025	11.0	6.0	GSM-0911-06
9.0	+0.083	11.0	20.0	GSM-0911-20
10.0		11.0	6.0	GSM-1011-06
10.0		11.0	7.0	GSM-1011-07
10.0	+0.013	11.0	10.0	GSM-1011-10
10.0	+0.049	11.0	20.0	GSM-1011-20
10.0		11.0	25.0	GSM-1011-25
10.0		11.0	30.0	GSM-1011-30
10.0		12.0	4.0	GSM-1012-04
10.0		12.0	4.5	GSM-1012-045
10.0		12.0	5.0	GSM-1012-05
10.0		12.0	6.0	GSM-1012-06
10.0		12.0	7.0	GSM-1012-07
10.0		12.0	8.0	GSM-1012-08
10.0	+0.025	12.0	9.0	GSM-1012-09
10.0	+0.083	12.0	10.0	GSM-1012-10
10.0		12.0	12.0	GSM-1012-12
10.0		12.0	14.0	GSM-1012-14
10.0		12.0	15.0	GSM-1012-15
10.0		12.0	17.0	GSM-1012-17
10.0		12.0	20.0	GSM-1012-20
10.0		13.0	13.5	GSM-1013-13
10.0	+0.025	14.0	10.0	GSM-1014-10
10.0	+0.115	14.0	20.0	GSM-1014-20
10.0	+0.040	16.0	10.0	GSM-1016-10
10.0	+0.130			
12.0		13.0	4.7	GSM-1213-047
12.0	+0.016	13.0	10.0	GSM-1213-10
12.0	+0.059	13.0	12.0	GSM-1213-12
12.0		13.0	15.0	GSM-1213-15
12.0		14.0	4.0	GSM-1214-04
12.0		14.0	5.0	GSM-1214-05
12.0		14.0	6.0	GSM-1214-06
12.0		14.0	8.0	GSM-1214-08
12.0	+0.032	14.0	10.0	GSM-1214-10
12.0	+0.102	14.0	12.0	GSM-1214-12
12.0		14.0	14.0	GSM-1214-14
12.0		14.0	15.0	GSM-1214-15
12.0		14.0	20.0	GSM-1214-20

³⁾ after pressfit. Testing methods ► Page 75

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
12.0		14.0	25.0	GSM-1214-25
12.0	+0.032	15.0	6.0	GSM-1215-06
12.0	+0.102	15.0	22.0	GSM-1215-22
12.0	+0.050	16.0	10.0	GSM-1216-10
12.0	+0.160	16.0	20.0	GSM-1216-20
13.0		15.0	7.0	GSM-1315-070
13.0		15.0	7.5	GSM-1315-075
13.0		15.0	10.0	GSM-1315-10
13.0		15.0	15.0	GSM-1315-15
13.0		15.0	20.0	GSM-1315-20
13.0		15.0	25.0	GSM-1315-25
14.0		16.0	3.0	GSM-1416-03
14.0	+0.032	16.0	6.0	GSM-1416-06
14.0	+0.102	16.0	8.0	GSM-1416-08
14.0		16.0	10.0	GSM-1416-10
14.0		16.0	12.0	GSM-1416-12
14.0		16.0	15.0	GSM-1416-15
14.0		16.0	20.0	GSM-1416-20
14.0		16.0	25.0	GSM-1416-25
14.0		16.0	45.0	GSM-1416-45
15.0	+0.016	16.0	10.0	GSM-1516-10
15.0	+0.059	16.0	15.0	GSM-1516-15
15.0		17.0	4.0	GSM-1517-04
15.0		17.0	10.0	GSM-1517-10
15.0		17.0	12.0	GSM-1517-12
15.0		17.0	15.0	GSM-1517-15
15.0		17.0	20.0	GSM-1517-20
15.0		17.0	25.0	GSM-1517-25
16.0		18.0	5.5	GSM-1618-055
16.0		18.0	8.0	GSM-1618-08
16.0	+0.032	18.0	10.0	GSM-1618-10
16.0	+0.102	18.0	12.0	GSM-1618-12
16.0		18.0	13.5	GSM-1618-13.5
16.0		18.0	15.0	GSM-1618-15
16.0		18.0	20.0	GSM-1618-20
16.0		18.0	25.0	GSM-1618-25
16.0		18.0	30.0	GSM-1618-30
16.0		18.0	38.5	GSM-1618-38.5
16.0		18.0	50.0	GSM-1618-50
17.0		19.0	15.0	GSM-1719-15
18.0	+0.016	19.0	15.0	GSM-1819-15
18.0	+0.059	20.0	6.0	GSM-1820-06
18.0	+0.032	20.0	10.0	GSM-1820-10
18.0	+0.102	20.0	12.0	GSM-1820-12

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.	d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
18.0		20.0	15.0	GSM-1820-15	24.0		27.0	20.0	GSM-2427-20
18.0		20.0	20.0	GSM-1820-20	24.0	+0.040	27.0	24.0	GSM-2427-24
18.0	+0.032	20.0	25.0	GSM-1820-25	24.0	+0.124	27.0	25.0	GSM-2427-25
18.0	+0.102	20.0	34.0	GSM-1820-34	24.0		27.0	30.0	GSM-2427-30
18.0		20.0	38.0	GSM-1820-38	25.0	+0.020	26.0	23.0	GSM-2526-23
18.0		20.0	45.0	GSM-1820-45	25.0	+0.072	26.0	25.0	GSM-2526-25
18.0		22.0	30.0	GSM-1822-30	25.0		28.0	12.0	GSM-2528-12
19.0	+0.040	22.0	6.0	GSM-1922-06	25.0		28.0	15.0	GSM-2528-15
19.0	+0.124	22.0	28.0	GSM-1922-28	25.0		28.0	20.0	GSM-2528-20
19.0		22.0	35.0	GSM-1922-35	25.0		28.0	24.0	GSM-2528-24
20.0	+0.020	21.0	20.0	GSM-2021-20	25.0		28.0	25.0	GSM-2528-25
20.0	+0.072	21.0	20.0	GSM-2021-20	25.0		28.0	30.0	GSM-2528-30
20.0		22.0	3.0	GSM-2022-03	25.0		28.0	35.0	GSM-2528-35
20.0		22.0	8.0	GSM-2022-08	25.0	+0.040	28.0	50.0	GSM-2528-50
20.0		22.0	10.5	GSM-2022-105	26.0	+0.124	30.0	16.0	GSM-2630-16
20.0		22.0	15.0	GSM-2022-15	27.0		30.0	5.0	GSM-2730-05
20.0		22.0	20.0	GSM-2022-20	28.0		32.0	10.5	GSM-2832-105
20.0		22.0	22.0	GSM-2022-22	28.0		32.0	12.0	GSM-2832-12
20.0		22.0	28.0	GSM-2022-28	28.0		32.0	15.0	GSM-2832-15
20.0		22.0	30.0	GSM-2022-30	28.0		32.0	20.0	GSM-2832-20
20.0		22.0	47.0	GSM-2022-47	28.0		32.0	23.0	GSM-2832-23
20.0		23.0	4.5	GSM-2023-045	28.0		32.0	25.0	GSM-2832-25
20.0		23.0	10.0	GSM-2023-10	28.0		32.0	30.0	GSM-2832-30
20.0		23.0	15.0	GSM-2023-15	28.0	+0.065	35.0	19.0	GSM-2835-19
20.0		23.0	20.0	GSM-2023-20	28.0	+0.195	35.0	28.0	GSM-2835-28
20.0		23.0	24.0	GSM-2023-24	29.0	+0.040	33.0	6.0	GSM-2933-06
20.0	+0.040	23.0	25.0	GSM-2023-25	29.0	+0.124	33.0	6.0	GSM-2933-06
20.0	+0.124	23.0	30.0	GSM-2023-30	30.0	+0.020	31.0	5.0	GSM-3031-05
20.0		23.0	35.0	GSM-2023-35	30.0	+0.072	31.0	12.0	GSM-3031-12
22.0		24.0	8.0	GSM-2224-08	30.0		31.0	30.0	GSM-3031-30
22.0		24.0	10.0	GSM-2224-10	30.0		34.0	12.0	GSM-3034-12
22.0		24.0	12.0	GSM-2224-12	30.0		34.0	15.0	GSM-3034-15
22.0		24.0	15.0	GSM-2224-15	30.0		34.0	20.0	GSM-3034-20
22.0		24.0	17.0	GSM-2224-17	30.0		34.0	24.0	GSM-3034-24
22.0		24.0	20.0	GSM-2224-20	30.0	+0.040	34.0	25.0	GSM-3034-25
22.0		24.0	30.0	GSM-2224-30	30.0	+0.124	34.0	30.0	GSM-3034-30
22.0		24.0	48.0	GSM-2224-48	30.0		34.0	35.0	GSM-3034-35
22.0		25.0	15.0	GSM-2225-15	30.0		34.0	40.0	GSM-3034-40
22.0		25.0	20.0	GSM-2225-20	30.0		34.0	52.5	GSM-3034-525
22.0		25.0	25.0	GSM-2225-25	32.0		36.0	15.0	GSM-3236-15
22.0		25.0	30.0	GSM-2225-30	32.0		36.0	20.0	GSM-3236-20
22.0		25.0	38.5	GSM-2225-38.5	32.0	+0.050	36.0	30.0	GSM-3236-30
24.0	+0.020 +0.072	25.0	25.0	GSM-2425-25	32.0	+0.150	36.0	40.0	GSM-3236-40
24.0	+0.040	27.0	6.0	GSM-2427-06	35.0		39.0	14.0	GSM-3539-14
24.0	+0.124	27.0	15.0	GSM-2427-15	35.0		39.0	20.0	GSM-3539-20

³⁾ after pressfit. Testing methods ► Page 75

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.	d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
35.0		39.0	25.0	GSM-3539-25	60.0		65.0	40.0	GSM-6065-40
35.0		39.0	30.0	GSM-3539-30	60.0	+0.060	65.0	50.0	GSM-6065-50
35.0		39.0	40.0	GSM-3539-40	60.0	+0.180	65.0	60.0	GSM-6065-60
35.0		39.0	50.0	GSM-3539-50	60.0		65.0	70.0	GSM-6065-70
35.0		41.0	50.0	GSM-3541-50	62.0	+0.100	67.0	35.0	GSM-6267-35
36.0		40.0	20.0	GSM-3640-20	62.0	+0.250	67.0	35.0	GSM-6267-35
37.0		41.0	20.0	GSM-3741-20	62.0		67.0	72.0	GSM-6267-72
38.0		42.0	25.0	GSM-3842-25	65.0		70.0	30.0	GSM-6570-30
40.0		44.0	10.0	GSM-4044-10	65.0		70.0	50.0	GSM-6570-50
40.0		44.0	16.5	GSM-4044-16	65.0		70.0	104.0	GSM-6570-104
40.0		44.0	20.0	GSM-4044-20	68.0		73.0	60.0	GSM-6873-60
40.0		44.0	30.0	GSM-4044-30	70.0	+0.060	75.0	60.0	GSM-7075-60
40.0		44.0	40.0	GSM-4044-40	72.0	+0.180	77.0	24.5	GSM-7277-24.5
40.0	+0.050	44.0	50.0	GSM-4044-50	72.0		77.0	76.0	GSM-7277-76
40.0	+0.150	44.0	52.5	GSM-4044-525	75.0		80.0	40.0	GSM-7580-40
42.0		46.0	40.0	GSM-4246-40	75.0		80.0	60.0	GSM-7580-60
44.0		48.0	20.0	GSM-4448-20	80.0		85.0	60.0	GSM-8085-60
45.0		50.0	10.0	GSM-4550-10	80.0		85.0	100.0	GSM-8085-100
45.0		50.0	22.0	GSM-4550-22	85.0		90.0	100.0	GSM-8590-100
45.0		50.0	23.5	GSM-4550-235	90.0		95.0	100.0	GSM-9095-100
45.0		50.0	30.0	GSM-4550-30	95.0		100.0	100.0	GSM-95100-100
45.0		50.0	38.0	GSM-4550-38	100.0		105.0	21.5	GSM-100105-21.5
45.0		50.0	40.0	GSM-4550-40	100.0	+0.072	105.0	30.0	GSM-100105-30
45.0		50.0	50.0	GSM-4550-50	100.0	+0.212	105.0	32.0	GSM-100105-32
50.0		55.0	20.0	GSM-5055-20	100.0		105.0	100.0	GSM-100105-100
50.0		55.0	25.0	GSM-5055-25	105.0		110.0	100.0	GSM-105110-100
50.0		55.0	30.0	GSM-5055-30	110.0		115.0	100.0	GSM-110115-100
50.0		55.0	40.0	GSM-5055-40	120.0		125.0	100.0	GSM-120125-100
50.0		55.0	50.0	GSM-5055-50	125.0		130.0	100.0	GSM-125130-100
52.0		57.0	20.0	GSM-5257-20	130.0		135.0	100.0	GSM-130135-100
55.0		60.0	20.0	GSM-5560-20	135.0	+0.085	140.0	80.0	GSM-135140-80
55.0	+0.060	60.0	40.0	GSM-5560-40	140.0	+0.245	145.0	100.0	GSM-140145-100
55.0	+0.180	60.0	50.0	GSM-5560-50	140.0		145.0	104.0	GSM-140145-104
55.0		60.0	60.0	GSM-5560-60	150.0		155.0	100.0	GSM-150155-100
60.0		65.0	30.0	GSM-6065-30					

³⁾ after pressfit. Testing methods ► Page 75

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	d3	b1	b2	Part No.	d1	d1- Tolerance ³⁾	d2	d3	b1	b2	Part No.
		d13	d13	h13	-0.14				d13	h13	-0.14		
15.0		17.0	23.0	20.0	1.0	GFM-1517-20	25.0		27.0	32.0	7.0	-	GFM-2527-07
15.0		18.0	24.0	32.0	1.5	GFM-151824-32	25.0		27.0	32.0	48.0	1.0	GFM-2527-48
16.0		18.0	24.0	4.0	1.0	GFM-1618-04	25.0		28.0	35.0	11.5	1.5	GFM-2528-11
16.0		18.0	24.0	5.0	1.0	GFM-1618-05	25.0		28.0	35.0	16.5	1.5	GFM-2528-16
16.0		18.0	24.0	6.0	1.0	GFM-1618-06	25.0		28.0	35.0	21.5	1.5	GFM-2528-21
16.0		18.0	24.0	9.0	1.0	GFM-1618-09	25.0		28.0	30.0	10.0	1.5	GFM-252830-10
16.0		18.0	24.0	12.0	1.0	GFM-1618-12	26.0		30.0	37.0	12.0	2.0	GFM-2630-12
16.0		18.0	24.0	16.0	1.0	GFM-1618-16	27.0		30.0	38.0	20.0	1.5	GFM-2730-20
16.0		18.0	24.0	17.0	1.0	GFM-1618-17	28.0		30.0	36.0	10.0	1.0	GFM-2830-10
16.0		18.0	24.0	21.0	1.0	GFM-1618-21	28.0		30.0	35.0	36.0	1.0	GFM-2830-36
17.0		19.0	25.0	9.0	1.0	GFM-1719-09	28.0		30.0	35.0	48.0	1.0	GFM-2830-48
17.0	+0.032	19.0	25.0	16.0	1.0	GFM-1719-16	28.0		30.0	36.0	31.0	1.0	GFM-283036-31
17.0	+0.102	19.0	25.0	25.0	1.0	GFM-1719-25	28.0	+0.040	32.0	39.0	20.0	2.0	GFM-283239-20
18.0		20.0	26.0	4.0	1.0	GFM-1820-04	28.0	+0.124	32.0	50.0	35.0	2.0	GFM-283250-35
18.0		20.0	26.0	6.0	1.0	GFM-1820-06	30.0		31.0	36.0	20.0	0.5	GFM-3031-20
18.0		20.0	26.0	9.0	1.0	GFM-1820-09	30.0		31.0	35.0	30.0	0.5	GFM-3031-30
18.0		20.0	26.0	11.0	1.0	GFM-1820-11	30.0		32.0	37.0	4.0	1.0	GFM-3032-04
18.0		20.0	26.0	12.0	1.0	GFM-1820-12	30.0		32.0	37.0	12.0	1.0	GFM-3032-12
18.0		20.0	26.0	17.0	1.0	GFM-1820-17	30.0		32.0	37.0	17.5	1.0	GFM-3032-17
18.0		20.0	26.0	22.0	1.0	GFM-1820-22	30.0		32.0	37.0	22.0	1.0	GFM-3032-22
18.0		20.0	26.0	30.0	1.0	GFM-1820-30	30.0		34.0	42.0	9.0	2.0	GFM-3034-09
18.0		20.0	26.0	32.0	1.0	GFM-1820-32	30.0		34.0	42.0	16.0	2.0	GFM-3034-16
18.0		20.0	22.0	6.0	1.0	GFM-182022-06	30.0		34.0	42.0	20.0	2.0	GFM-3034-20
18.0		22.0	26.0	28.0	2.0	GFM-1822-28	30.0		34.0	42.0	26.0	2.0	GFM-3034-26
20.0	+0.020	21.0	26.0	3.5	0.5	GFM-2021-035	30.0		34.0	42.0	37.0	2.0	GFM-3034-37
20.0	+0.072	21.0	25.0	15.0	0.5	GFM-2021-15	30.0		34.0	40.0	10.0	2.0	GFM-303440-10
20.0		21.0	25.0	20.0	0.5	GFM-2021-20	32.0		36.0	40.0	16.0	2.0	GFM-3236-16
20.0		23.0	30.0	7.0	1.5	GFM-2023-07	32.0		36.0	40.0	26.0	2.0	GFM-3236-26
20.0		23.0	30.0	11.5	1.5	GFM-2023-11	34.0		38.0	50.0	35.0	2.0	GFM-343850-35
20.0		23.0	30.0	16.5	1.5	GFM-2023-16	35.0		39.0	47.0	5.8	2.0	GFM-3539-058
20.0		23.0	30.0	21.5	1.5	GFM-2023-21	35.0		39.0	47.0	7.0	2.0	GFM-3539-07
20.0		23.0	26.0	7.0	1.5	GFM-202326-07	35.0		39.0	47.0	12.0	2.0	GFM-3539-12
20.0		23.0	26.0	21.5	1.5	GFM-202326-21	35.0		39.0	47.0	16.0	2.0	GFM-3539-16
20.0		23.0	28.0	15.0	1.5	GFM-202328-15	35.0		39.0	47.0	26.0	2.0	GFM-3539-26
20.0	+0.040	23.0	29.0	20.0	1.5	GFM-202329-20	35.0	+0.050	39.0	47.0	36.0	2.0	GFM-3539-36
22.0	+0.124	24.0	30.0	25.0	1.0	GFM-2224-25	38.0	+0.150	42.0	54.0	22.0	2.0	GFM-3842-22
22.0		25.0	29.0	4.5	1.5	GFM-222529-045	40.0		44.0	52.0	7.0	2.0	GFM-4044-07
22.0		25.0	30.0	21.5	1.5	GFM-222530-215	40.0		44.0	52.0	14.0	2.0	GFM-4044-14
22.0		25.0	30.0	25.0	1.5	GFM-222530-25	40.0		44.0	52.0	20.0	2.0	GFM-4044-20
22.0		25.0	35.0	31.5	1.5	GFM-222535-315	40.0		44.0	52.0	30.0	2.0	GFM-4044-30
24.0		27.0	32.0	7.0	1.5	GFM-2427-07	40.0		44.0	52.0	40.0	2.0	GFM-4044-40
24.0		27.0	32.0	10.5	1.5	GFM-2427-10	40.0		44.0	52.0	50.0	2.0	GFM-4044-50
25.0	+0.020	26.0	30.0	25.0	0.5	GFM-2526-25	40.0		46.0	50.0	20.0	2.0	GFM-4046-20
	+0.072						42.0		46.0	53.0	19.0	2.0	GFM-4246-19

³⁾ after pressfit. Testing methods ► Page 75

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	d3	b1	b2	Part No.	d1	d1- Tolerance ³⁾	d2	d3	b1	b2	Part No.
		d13	d13	h13	-0.14				d13	h13	-0.14		
45.0		50.0	58.0	25.0	2.0	GFM-4550-25	80.0	+0.060	85.0	93.0	50.0	2.5	GFM-8085-50
45.0		50.0	58.0	30.0	2.0	GFM-4550-30	80.0	+0.180	85.0	93.0	100.0	2.5	GFM-8085-100
45.0		50.0	58.0	50.0	2.0	GFM-4550-50	85.0		90.0	98.0	100.0	2.5	GFM-8590-100
50.0	+0.050	55.0	63.0	7.0	2.0	GFM-5055-07	90.0		95.0	103.0	100.0	2.5	GFM-9095-100
50.0	+0.150	55.0	63.0	10.0	2.0	GFM-5055-10	95.0		100.0	108.0	100.0	2.5	GFM-95100-100
50.0		55.0	63.0	25.0	2.0	GFM-5055-25	100.0	+0.072	105.0	113.0	42.5	2.5	GFM-100105-425
50.0		55.0	63.0	40.0	2.0	GFM-5055-40	100.0	+0.212	105.0	113.0	100.0	2.5	GFM-100105-100
50.0		55.0	63.0	50.0	2.0	GFM-5055-50	110.0		115.0	123.0	100.0	2.5	GFM-110115-100
60.0		65.0	73.0	7.0	2.0	GFM-6065-07	120.0		125.0	133.0	80.0	2.5	GFM-120125-80
60.0		65.0	73.0	22.0	2.0	GFM-6065-22	120.0		125.0	133.0	100.0	2.5	GFM-120125-100
60.0		65.0	73.0	30.0	2.0	GFM-6065-30	125.0		130.0	138.0	100.0	2.5	GFM-125130-100
60.0		65.0	73.0	50.0	2.0	GFM-6065-50	130.0		135.0	143.0	100.0	2.5	GFM-130135-100
60.0	+0.060	65.0	80.0	62.0	2.0	GFM-606580-62	140.0	+0.085	145.0	153.0	100.0	2.5	GFM-140145-100
65.0	+0.180	70.0	78.0	50.0	2.0	GFM-6570-50	150.0	+0.245	155.0	163.0	40.0	2.5	GFM-150155-40
70.0		75.0	83.0	50.0	2.0	GFM-7075-50	150.0		155.0	163.0	100.0	2.5	GFM-150155-100
70.0		75.0	83.0	85.5	2.0	GFM-7075-855		+0.100					
75.0		80.0	88.0	50.0	2.0	GFM-7580-50	195.0	+0.285	205.0	240.0	65.0	5.0	GFM-195205240-65

³⁾ after pressfit. Testing methods ► Page 75**Don't find your size?**

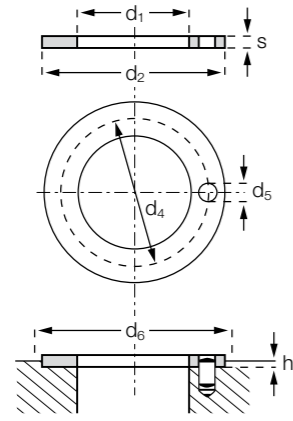
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Dimensions

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iglidur® material	Form T	Metric	Inner-Ø d1 [mm]	Outer-Ø d2 [mm]	Thickness s [mm]
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Dimensions according to ISO 3547-1 and special dimensions

Dimensions [mm]

d1	d2	s	d4	d5	h	d6	Part No.
+0.25	-0.25	-0.05	-0.12 +0.12	+0.375 +0.125	+0.2 -0.2	+0.12	
4.0	8.0	0.5	4)	4)	0.2	8.0	GTM-0408-005
4.0	9.0	0.6	4)	4)	0.3	9.0	GTM-0409-006
4.0	9.0	1.6	4)	4)	0.3	9.0	GTM-0409-016
4.0	10.0	0.5	4)	4)	0.2	10.0	GTM-0410-005
4.0	11.0	0.5 (-0.06)	4)	4)	0.2	11.0	GTM-0411-005
5.0	9.5	0.6	4)	4)	0.3	9.5	GTM-0509-006
6.0	11.0	1.0	4)	4)	0.7	11.0	GTM-0611-010
6.0	12.0	1.5	4)	4)	1.0	12.0	GTM-0612-015
6.0	15.0	1.5	4)	4)	1.0	15.0	GTM-0615-015
6.0	20.0	1.5	13.0	1.5	1.0	20.0	GTM-0620-015
7.0	12.0	0.5	4)	4)	0.2	12.0	GTM-0712-005
7.0	13.0	0.5	4)	4)	0.2	13.0	GTM-0713-005
8.0	15.0	0.5	4)	4)	0.2	15.0	GTM-0815-005
8.0	15.0	1.5	4)	4)	1.0	15.0	GTM-0815-015
8.0	18.0	1.0	4)	4)	0.7	18.0	GTM-0818-010
8.0	18.0	1.5	13.0	1.5	1.0	18.0	GTM-0818-015
8.0	18.0	2.0	4)	4)	1.5	18.0	GTM-0818-020
9.0	13.0	1.0	4)	4)	0.7	13.0	GTM-0913-010
9.0	18.0	1.5	13.5	1.5	1.0	18.0	GTM-0918-015
10.0	17.8	0.5	4)	4)	0.2	17.8	GTM-1018-005
10.0	18.0	1.0	4)	4)	0.7	18.0	GTM-1018-010
10.0	18.0	1.5	4)	4)	1.0	18.0	GTM-1018-015
10.0	18.0	2.0	4)	4)	1.5	18.0	GTM-1018-020
10.0	20.0	1.5	4)	4)	0.7	20.0	GTM-1020-015
11.0	15.0	1.0	4)	4)	0.7	15.0	GTM-1115-010
11.0	27.0	0.5	4)	4)	0.2	27.0	GTM-1127-005
12.0	24.0	1.5	18.0	1.5	1.0	24.0	GTM-1224-015
12.0	30.0	1.5	4)	4)	1.0	30.0	GTM-1230-015
14.0	20.0	1.5	4)	4)	1.0	20.0	GTM-1420-015
14.0	26.0	1.5	20.0	2.0	1.0	26.0	GTM-1426-015

4) Design without fixing bore

Thrust bearings

Dimensions [mm]

d1	d2	s	d4	d5	h	d6	Part No.
+0.25	-0.25	-0.05	-0.12 +0.12	+0.375 +0.125	+0.2 -0.2	+0.12	
15.0	22.0	0.8	4)	4)	0.5	22.0	GTM-1522-008
15.0	19.0	0.8	4)	4)	0.5	19.0	GTM-1519-008
15.0	24.0	1.5	19.5	1.5	1.0	24.0	GTM-1524-015
15.0	24.0	2.75	4)	4)	2.0	24.0	GTM-1524-0275
16.0	28.0	1.0	4)	4)	0.7	28.0	GTM-1628-010
16.0	30.0	1.5	22.0	2.0	1.0	30.0	GTM-1630-015
18.0	32.0	1.5	25.0	2.0	1.0	32.0	GTM-1832-015
20.0	36.0	1.5	28.0	3.0	1.0	36.0	GTM-2036-015
22.0	30.0	1.5	4)	4)	1.0	30.0	GTM-2230-015
22.0	38.0	1.5	30.0	3.0	1.0	38.0	GTM-2238-015
24.0	42.0	1.5	33.0	3.0	1.0	42.0	GTM-2442-015
26.0	44.0	1.5	35.0	3.0	1.0	44.0	GTM-2644-015
28.5	35.8	0.5	4)	4)	0.2	35.8	GTM-2835-005
28.0	48.0	1.5	38.0	4.0	1.0	48.0	GTM-2848-015
32.0	45.8	1.0	4)	4)	0.7	45.8	GTM-3246-010
32.0	54.0	1.5	43.0	4.0	1.0	54.0	GTM-3254-015
38.0	62.0	1.5	50.0	4.0	1.0	62.0	GTM-3862-015
42.0	66.0	1.5	54.0	4.0	1.0	66.0	GTM-4266-015
48.0	60.0	2.0	61.0	4.0	1.5	74.0	GTM-4860-020
48.0	74.0	2.0	61.0	4.0	1.5	74.0	GTM-4874-020
52.0	78.0	2.0	65.0	4.0	1.5	78.0	GTM-5278-020
52.5	69.0	2.0	4)	4)	1.5	69.0	GTM-52569-020
62.0	78.0	2.0	4)	4)	1.5	78.0	GTM-6278-020
62.0	90.0	1.0	4)	4)	0.7	90.0	GTM-6290-010
62.0	90.0	2.0	76.0	4.0	1.5	90.0	GTM-6290-020
68.0	81.0	2.0	4)	4)	1.5	81.0	GTM-6881-020
78.0	114.0	1.5	4)	4)	1.0	114.0	GTM-78114-015
80.5	114.0	1.5	4)	4)	1.0	114.0	GTM-80114-015

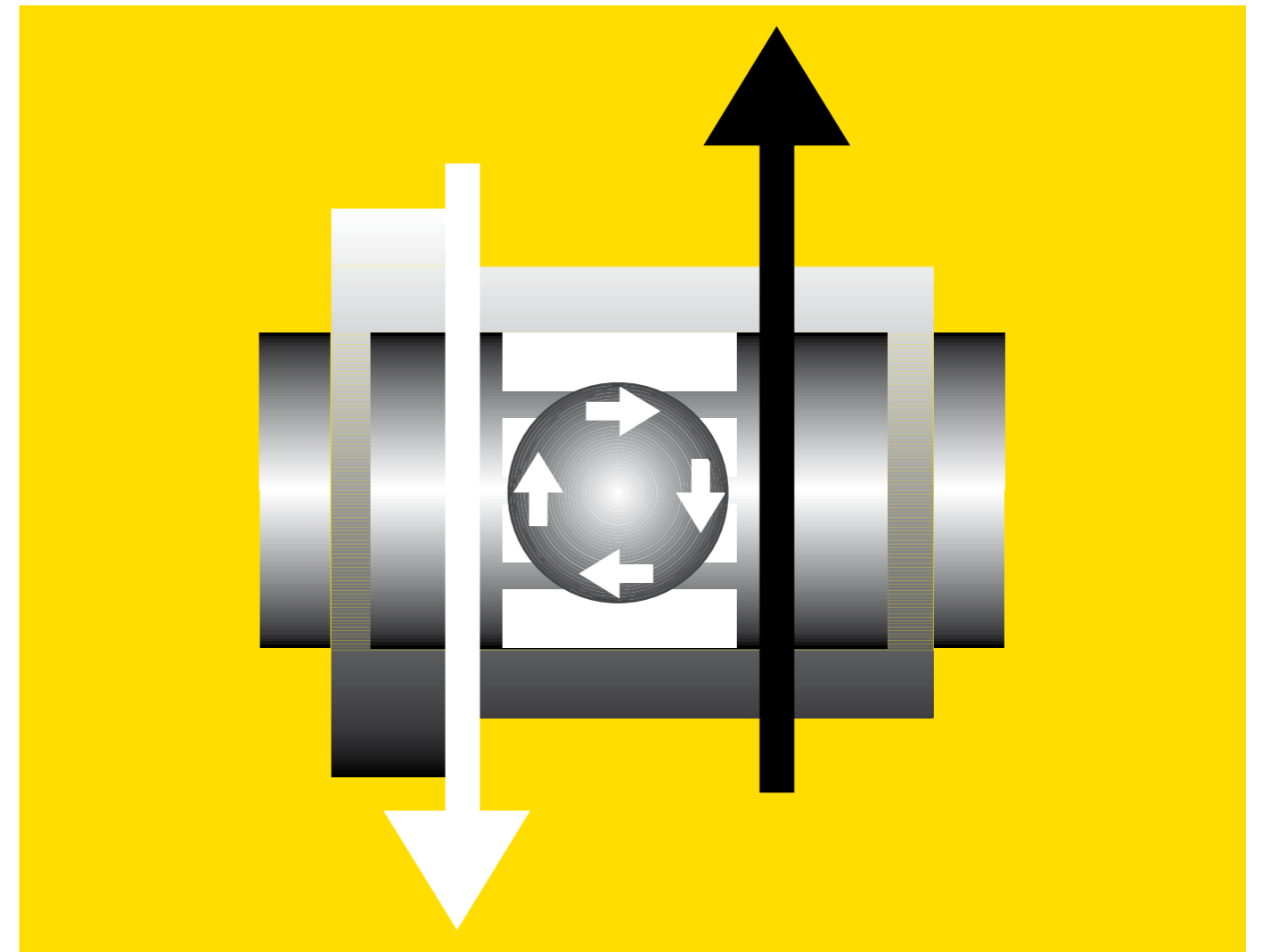
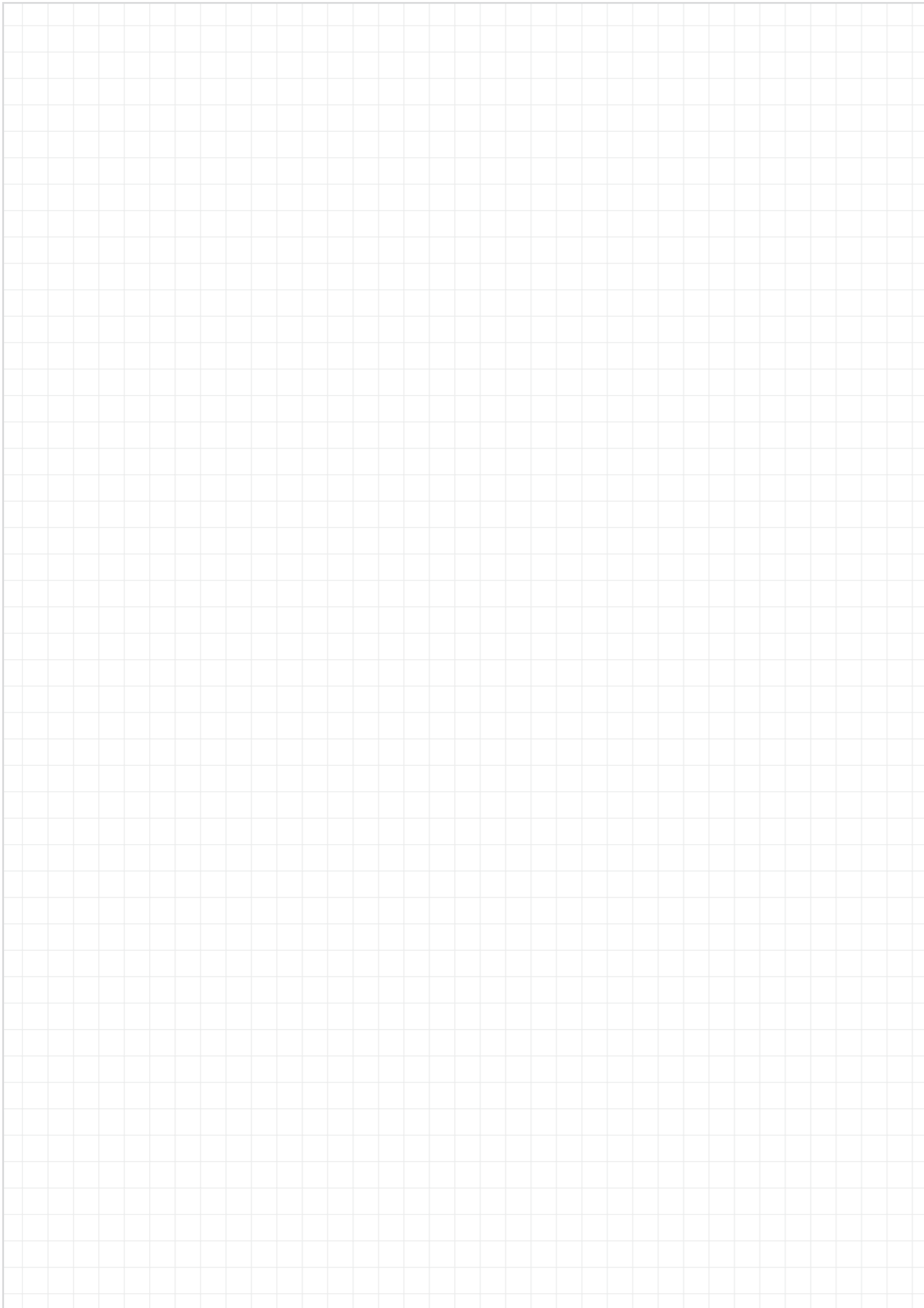
4) Design without fixing bore



Even more dimensions from stock

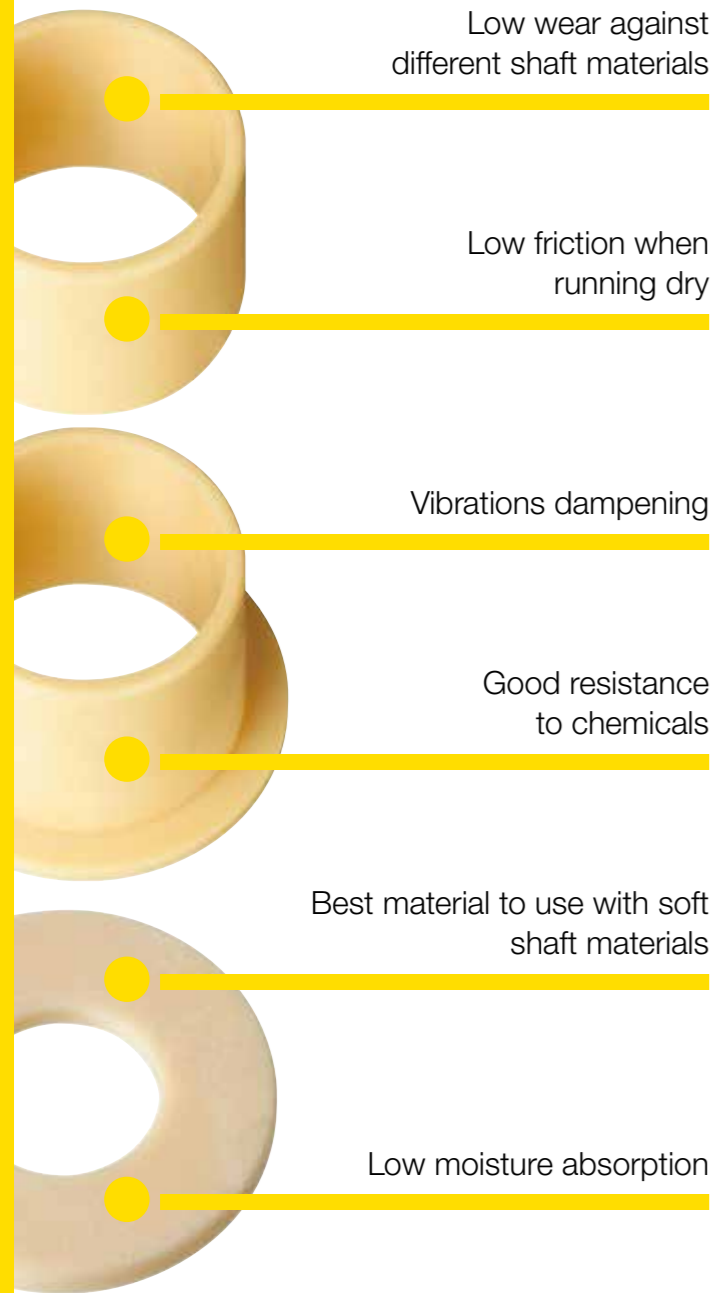
More than 300 dimensions are now available. Search online for your required bearing.

► www.igus.eu/iglidur-specialbearings



Low friction, low wear: the fast and slow motion specialist – iglidur® J

- More than 250 dimensions from stock
- 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



One main advantage of iglidur® J plain bearings is the combination of a low coefficient of friction when running dry and the low stickslip tendency. With a recommended maximum surface pressure of 35 MPa, iglidur® J plain bearings are not suitable for extreme loads.



When to use it?

- For high speeds
- For highest wear resistance at low to medium pressures
- Low wear against different shafts
- Low coefficient of friction in dry operation
- Vibration dampening
- Good chemical resistance
- Best performance with soft shaft materials
- Low moisture absorption



When not to use it?

- When high pressures occur
 - ▶ iglidur® G, page 83
 - ▶ iglidur® W300, page 121
- When short term temperatures occur that are higher +120 °C
 - ▶ iglidur® G, page 83
 - ▶ iglidur® Z, page 263
- When a low-cost bearing for occasional movements is necessary
 - ▶ iglidur® G, page 83



max. +90 °C
min. -50 °C



Ø 1.5–139 mm
more dimensions on request



Inch dimensions available
▶ From page 1183



Available from stock
Detailed information about delivery time online.



Block pricing online
No minimum order value. From batch size 1



Typical application areas
● Automation ● Printing industry
● Beverage technology ● Aerospace engineering ● Cleanroom etc.

Material properties table

General properties	Unit	iglidur® J	Testing method
Density	g/cm ³	1.49	
Colour		yellow	
Max. moisture absorption at +23 °C/50 % r.h.	% weight	0.3	DIN 53495
Max. water absorption	% weight	1.3	
Coefficient of sliding friction, dynamic against steel	μ	0.06–0.18	
pv value, max. (dry)	MPa · m/s	0.34	
Mechanical properties			
Modulus of elasticity	MPa	2,400	DIN 53457
Tensile strength at +20 °C	MPa	73	DIN 53452
Compressive strength	MPa	60	
Max. recommended surface pressure (+20 °C)	MPa	35	
Shore-D hardness		74	DIN 53505
Physical and thermal properties			
Max. long term application temperature	°C	+90	
Max. short term application temperature	°C	+120	
Min. application temperature	°C	-50	
Thermal conductivity	W/m · K	0.25	ASTM C 177
Coefficient of thermal expansion (at +23 °C)	K ⁻¹ · 10 ⁻⁵	10	DIN 53752
Electrical properties			
Specific volume resistance	Ωcm	> 10 ¹³	DIN IEC 93
Surface resistance	Ω	> 10 ¹²	DIN 53482

Table 01: Material properties table

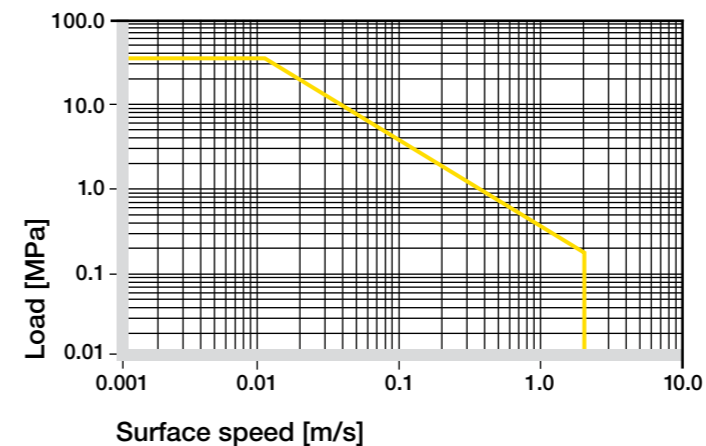


Diagram 01: Permissible pv values for iglidur® J bearings with a wall thickness of 1 mm dry running against a steel shaft, at +20 °C, mounted in a steel housing

Moisture absorption

The moisture absorption of iglidur® G plain bearings is approximately 0.3 % in ambient conditions. The saturation limit in water is 1.3 %. These values are so low that design changes due to absorption are only necessary in extreme cases.

▶ Diagram, www.igus.eu/j-moisture

Vacuum

iglidur® J plain bearings outgas in a vacuum. Therefore, only dehumidified bearings are suitable in vacuum.

Radiation resistance

Plain bearings made from iglidur® J are resistant to radiation up to an intensity of 3 · 10² Gy.

UV resistance

iglidur® J plain bearings become discoloured under UV radiation. However, the material properties do not change.

Medium	Resistance
Alcohol	+
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 [+20 °C]

Table 02: Chemical resistance

▶ Chemical table, page 1226

One main advantage of iglidur® J plain bearings is the combination of a low coefficient of friction when running dry and the low stick-slip tendency.

Mechanical properties

With increasing temperatures, the compressive strength of iglidur® J plain bearings decreases. The diagram 02 shows this inverse relationship. However, at the long term maximum temperature of +90 °C the permissible surface pressure is almost 20 MPa. The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this.

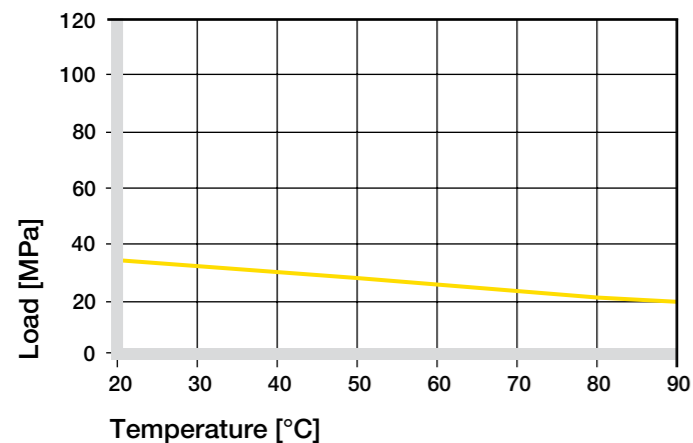


Diagram 02: Recommended maximum surface pressure of as a function of temperature (35 MPa at +20 °C)

With a recommended maximum surface pressure of 35 MPa, iglidur® J plain bearings are not suitable for extreme loads. Diagram 03 shows the elastic deformation of iglidur® J at radial loads.

► Surface pressure, page 63

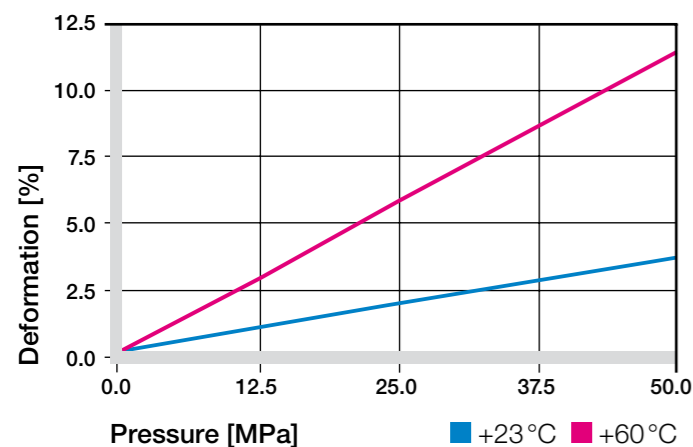


Diagram 03: Deformation under pressure and temperature

Permissible surface speeds

The low coefficient of friction and the extremely low stick-slip tendency of iglidur® J plain bearings are especially important at very low speeds. However, iglidur® J material can also be used for high speeds of over 1 m/s. In both cases the static friction is very low and stick-slip does not occur. The maximum values shown in table 03 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 65

m/s	Rotating	Oscillating	Linear
Constant	1.5	1.1	8
Short term	3	2.1	10

Table 03: Maximum surface speeds

Temperatures

iglidur® J plain bearings can be used between -50 °C and +90 °C; the short-term maximum permissible temperature is +120 °C. Also, the wear increases significantly above +80 °C. At temperatures over +60 °C an additional securing is required.

► Application temperatures, page 66

► Additional securing, page 67

Friction and wear

Similar to wear resistance, the coefficient of friction also changes with the load (diagrams 04 and 05).

► Coefficients of friction and surfaces, page 68

► Wear resistance, page 69

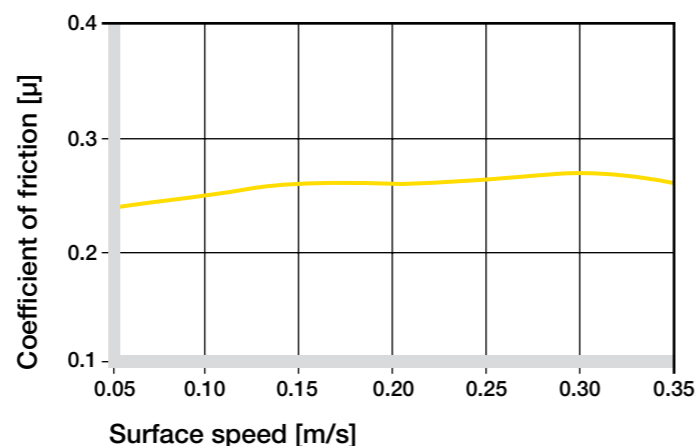


Diagram 04: Coefficient of friction as a function of the surface speed, p = 0.75 MPa

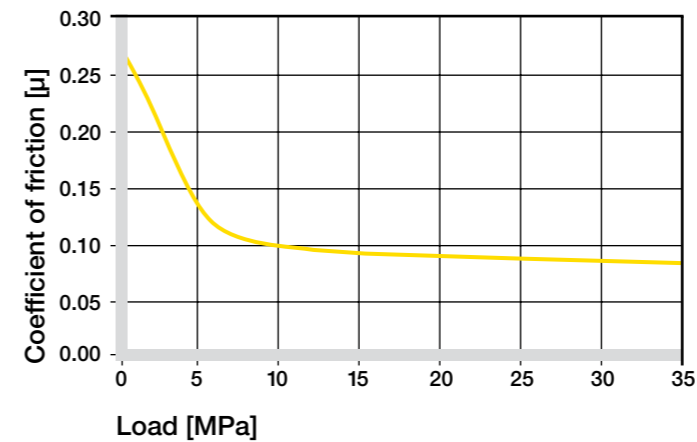


Diagram 05: Coefficient of friction as a function of the pressure, v = 0.01 m/s

Shaft materials

Friction and wear are also dependent, to a large extent, on the shaft material. With increasing shaft roughness, the coefficient of friction also increases. The best case is a ground surface with an average roughness Ra = 0.1–0.3 μm. Diagrams 06 and 07 show results of testing different shaft materials with plain bearings made from iglidur® J. When compared to most iglidur® materials, iglidur® J has very low wear results at low loads compared with all shaft materials tested. Also, for increasing pressures up to 5 MPa, the wear resistance of iglidur® J is excellent. If the shaft material you plan to use is not contained in this list, please contact us.

► Shaft materials, page 71

iglidur® J	Dry	Greases	Oil	Water
C. o. f. μ	0.06–0.18	0.09	0.04	0.04

Table 04: Coefficient of friction against steel (Ra = 1 μm, 50 HRC)

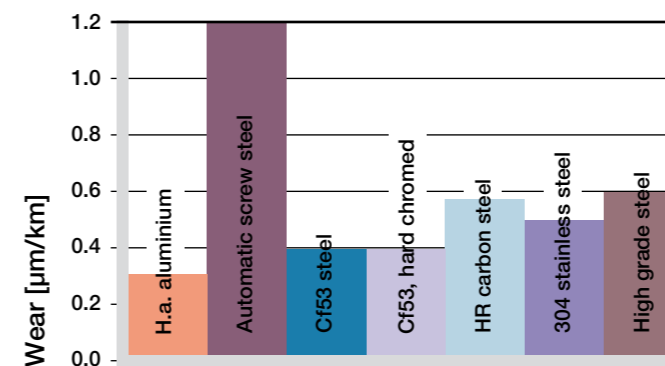


Diagram 06: Wear, rotating with different shaft materials, pressure, p = 1 MPa, v = 0.3 m/s

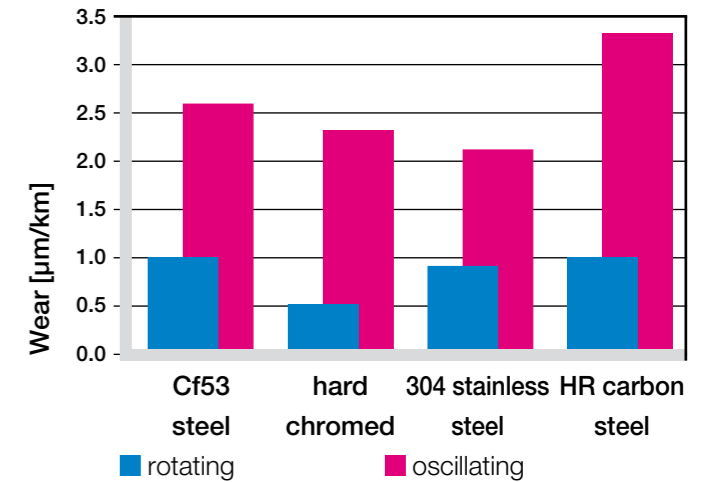


Diagram 07: Wear for rotating and oscillating applications with different shaft materials, p = 2 MPa

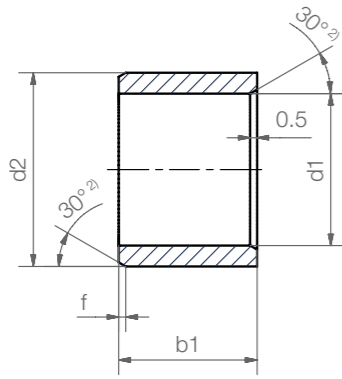
Installation tolerances

iglidur® J plain bearings are standard bearings for shafts with h-tolerance (recommended minimum h9). The bearings are designed for pressfit into a housing machined to a H7 tolerance. After being assembled into a nominal size housing, in standard cases the inner diameter automatically adjusts to the E10 tolerances. For specific dimensions the tolerance differs depending on the wall thickness (please see the product range table).

► Testing methods, page 75

Diameter d1 [mm]	Shaft h9 [mm]	iglidur® J E10 [mm]	Housing H7 [mm]
up to 3	3	0–0.025	+0.014 +0.054
> 3 to 6	6	0–0.030	+0.020 +0.068
> 6 to 10	10	0–0.036	+0.025 +0.083
> 10 to 18	18	0–0.043	+0.032 +0.102
> 18 to 30	30	0–0.052	+0.040 +0.124
> 30 to 50	50	0–0.062	+0.050 +0.150
> 50 to 80	80	0–0.074	+0.060 +0.180
> 80 to 120	120	0–0.087	+0.072 +0.212
>120 to 180	180	0–0.100	+0.085 +0.245

Table 05: Important tolerances for plain bearings according to ISO 3547-1 after pressfit



Order key

Type	Dimensions
J S M	-0104-02
iglidur® material	
Form S	
Metric	
Inner-Ø d1 [mm]	
Outer-Ø d2 [mm]	
Length b1 [mm]	



Dimensions according to ISO 3547-1 and special dimensions

²⁾ thickness < 1 mm, chamfer = 20°

Chamfer in relation to the d1

d1 [mm]:	Ø 1-6	Ø 6-12	Ø 12-30	Ø > 30
f [mm]:	0.3	0.5	0.8	1.2

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
1.5	+0.014	4.0	2.0	JSM-0104-02
2.0	+0.054	3.5	7.0	JSM-0203-07
2.0	+0.020	5.0	2.5	JSM-0205-02
2.5	+0.080	6.0	2.5	JSM-0206-02
3.0	+0.014	4.5	5.0	JSM-0304-05
3.0	+0.054	4.5	9.0	JSM-0304-09
3.0		5.0	4.0	JSM-0305-04
3.0	+0.020	7.0	14.0	JSM-0307-14
3.0	+0.080	8.0	4.0	JSM-0308-04
3.0		8.0	5.0	JSM-0308-05
4.0		5.5	4.0	JSM-0405-04
4.0		5.5	8.0	JSM-0405-08
5.0	+0.020	7.0	4.6	JSM-0507-046
5.0	+0.068	7.0	5.0	JSM-0507-05
5.0		7.0	10.0	JSM-0507-10
5.0		7.0	14.0	JSM-0507-14
5.0	+0.020	7.0	15.0	JSM-0507-15
5.0	+0.030	8.0	5.0	JSM-0508-05
5.0	+0.105			
6.0		7.0	3.0	JSM-0607-03
6.0		7.0	5.0	JSM-0607-05
6.0	+0.010	7.0	8.0	JSM-0607-08
6.0	+0.058	7.0	12.5	JSM-0607-12.5
6.0		7.0	14.0	JSM-0607-14
6.0	+0.020	8.0	4.3	JSM-0608-043
6.0	+0.068	8.0	6.0	JSM-0608-06
6.0		8.0	8.0	JSM-0608-08

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
6.0	+0.020	8.0	10.0	JSM-0608-10
6.0	+0.068			
6.0	+0.030	9.0	6.0	JSM-0609-06
6.0	+0.105	10.0	10.0	JSM-0610-10
7.0		9.0	5.0	JSM-0709-05
7.0		9.0	7.0	JSM-0709-07
7.0		9.0	9.0	JSM-0709-09
7.0		9.0	12.5	JSM-0709-125
8.0	+0.025	10.0	3.0	JSM-0810-03
8.0	+0.083	10.0	4.0	JSM-0810-04
8.0		10.0	6.0	JSM-0810-06
8.0		10.0	8.0	JSM-0810-08
8.0		10.0	10.0	JSM-0810-10
8.0		10.0	12.0	JSM-0810-12
8.0		10.0	16.0	JSM-0810-16
8.0	+0.040	12.0	10.0	JSM-0812-10
8.0	+0.130	12.0	12.0	JSM-0812-12
9.0		11.0	10.0	JSM-0911-10
10.0		12.0	5.0	JSM-1012-05
10.0		12.0	6.0	JSM-1012-06
10.0	+0.025	12.0	8.0	JSM-1012-08
10.0	+0.083	12.0	10.0	JSM-1012-10
10.0		12.0	11.0	JSM-1012-11
10.0		12.0	12.0	JSM-1012-12
10.0		12.0	15.0	JSM-1012-15
10.0		12.0	20.0	JSM-1012-20
10.0	+0.040	14.0	10.0	JSM-1014-10
10.0	+0.130	14.0	16.0	JSM-1014-16

³⁾ after pressfit. Testing methods ► Page 75

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
12.0		14.0	6.0	JSM-1214-06
12.0		14.0	8.0	JSM-1214-08
12.0	+0.032	14.0	9.0	JSM-1214-09
12.0	+0.102	14.0	10.0	JSM-1214-10
12.0		14.0	15.0	JSM-1214-15
12.0		14.0	20.0	JSM-1214-20
12.0	+0.050	16.0	12.0	JSM-1216-12
12.0	+0.160	16.0	17.0	JSM-1216-17
13.0		15.0	20.0	JSM-1315-20
13.0		16.0	18.5	JSM-1316-185
14.0		16.0	5.0	JSM-1416-05
14.0		16.0	8.0	JSM-1416-08
14.0	+0.032	16.0	10.0	JSM-1416-10
14.0	+0.102	16.0	15.0	JSM-1416-15
14.0		16.0	20.0	JSM-1416-20
14.0		16.0	25.0	JSM-1416-25
14.0		18.0	18.0	JSM-1418-18
14.0	+0.050	20.0	20.0	JSM-1420-20
14.0	+0.160			
15.0		17.0	6.0	JSM-1517-06
15.0		17.0	10.0	JSM-1517-10
15.0		17.0	12.0	JSM-1517-12
15.0		17.0	20.0	JSM-1517-20
15.0	+0.032	18.0	10.0	JSM-1518-10
15.0	+0.102	18.0	10.0	JSM-1618-10
16.0		18.0	12.0	JSM-1618-12
16.0		18.0	15.0	JSM-1618-15
16.0		18.0	20.0	JSM-1618-20
16.0	+0.050	20.0	16.0	JSM-1620-16
16.0	+0.160	22.0	16.0	JSM-1622-16
16.0		22.0	20.0	JSM-1622-20
17.0		19.0	6.0	JSM-1719-06
18.0	+0.032	20.0	10.0	JSM-1820-10
18.0	+0.102	20.0	15.0	JSM-1820-15
18.0		20.0	20.0	JSM-1820-20
19.0		22.0	14.0	JSM-1922-14
20.0		22.0	20.0	JSM-2022-20
20.0	+0.040	22.0	30.0	JSM-2022-30
20.0	+0.124	23.0	15.0	JSM-2023-15
20.0		23.0	20.0	JSM-2023-20
20.0	+0.020	23.0	25.0	JSM-2023-25
20.0	+0.104			
20.0	+0.065	26.0	6.0	JSM-2026-06
20.0	+0.195	26.0	20.0	JSM-2026-20
20.0		26.0	25.0	JSM-2026-25

³⁾ after pressfit. Testing methods ► Page 75

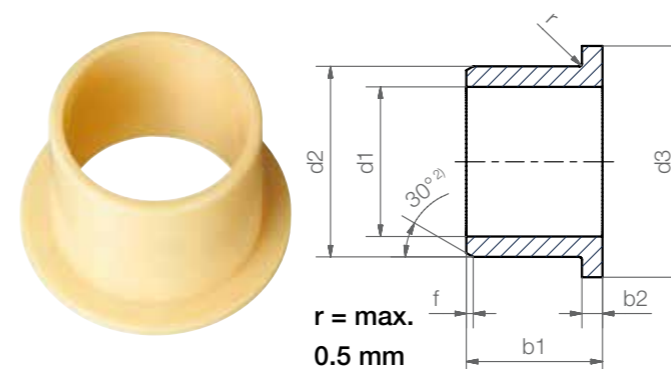
d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
20.0	+0.065	26.0	30.0	JSM-2026-30
20.0	+0.195			
21.0		24.0	12.0	JSM-2124-12
23.0		26.0	12.0	JSM-2326-12
24.0		27.0	25.0	JSM-2427-25
24.0		27.0	46.0	JSM-2427-46
25.0	+0.040	28.0	12.0	JSM-2528-12
25.0	+0.124	28.0	15.0	JSM-2528-15
25.0		28.0	20.0	JSM-2528-20
25.0		28.0	30.0	JSM-2528-30
25.0		28.0	60.0	JSM-2528-60
25.0		30.0	40.0	JSM-2530-40
25.0	+0.065	32.0	25.0	JSM-2532-25
25.0	+0.195	32.0	32.0	JSM-2532-32
25.0		32.0	35.0	JSM-2532-35
26.0		30.0	20.0	JSM-2630-20
27.0	+0.040	30.0	20.0	JSM-2730-20
27.0	+0.124			
28.0	+0.065	32.0	20.0	JSM-2832-20
28.0	+0.195			
30.0	+0.040	34.0	20.0	JSM-3034-20
30.0	+0.124	34.0	25.0	JSM-3034-25
30.0		34.0	30.0	JSM-3034-30
30.0	+0.065	38.0	40.0	JSM-3038-40
30.0	+0.195			
32.0		36.0	20.0	JSM-3236-20
32.0		36.0	30.0	JSM-3236-30
32.0		36.0	40.0	JSM-3236-40
32.0		37.0	25.0	JSM-3237-25
35.0		39.0	20.0	JSM-3539-20
32.0	+0.050	38.0	50.0	JSM-3238-50
35.0	+0.150	39.0	30.0	JSM-3539-30
35.0		39.0	40.0	JSM-3539-40
36.0		40.0	45.0	JSM-3640-45
40.0		44.0	30.0	JSM-4044-30
40.0		44.0	35.0	JSM-4044-35
40.0		44.0	40.0	JSM-4044-40
42.0	+0.080	46.0	73.0	JSM-4246-73
42.0	+0.240			
45.0	+0.025	50.0	50.0	JSM-4550-50
45.0	+0.125			
50.0	+0.050	55.0	30.0	JSM-5055-30
50.0	+0.150	55.0	50.0	JSM-5055-50
55.0	+0.060	60.0	60.0	JSM-5560-60
60.0	+0.180	65.0	60.0	JSM-6065-60

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
65.0		70.0	50.0	JSM-6570-50
70.0	+0.060	75.0	60.0	JSM-7075-60
75.0	+0.180	80.0	60.0	JSM-7580-60
80.0		85.0	100.0	JSM-8085-100

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
80.0	+0.060 +0.180	86.0	60.0	JSM-8086-60
100.0	+0.072	105.0	100.0	JSM-100105-100
110.0	+0.212	115.0	60.0	JSM-110115-60

³⁾ after pressfit. Testing methods ► Page 75



²⁾ thickness < 1 mm, chamfer = 20°

Chamfer in relation to the d1

d1 [mm]:	Ø 1-6	Ø 6-12	Ø 12-30	Ø > 30
f [mm]:	0.3	0.5	0.8	1.2

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	d3 d13	b1 h13	b2 -0.14	Part No.
3.0		4.5	7.5	3.0	0.75	JFM-0304-03
3.0	+0.014	4.5	7.5	4.5	0.75	JFM-0304-045
3.0	+0.054	4.5	7.5	5.0	0.75	JFM-0304-05
3.0	+0.020 +0.080	6.0	9.0	10.0	1.5	JFM-0306-10
4.0		5.5	9.5	3.0	0.75	JFM-0405-03
4.0		5.5	9.5	6.0	0.75	JFM-0405-06
5.0		6.0	10.0	5.0	0.5	JFM-0506-05
5.0	+0.020	7.0	11.0	3.0	1.0	JFM-0507-03
5.0	+0.068	7.0	11.0	5.0	1.0	JFM-0507-05
6.0		8.0	12.0	4.0	1.0	JFM-0608-04
6.0		8.0	12.0	6.0	1.0	JFM-0608-06
6.0		8.0	12.0	8.0	1.0	JFM-0608-08
6.0		8.0	12.0	10.0	1.0	JFM-0608-10
6.0	+0.030 +0.105	10.0	14.0	10.0	2.0	JFM-0610-10
8.0		10.0	15.0	3.8	1.0	JFM-0810-038
8.0		10.0	15.0	5.0	1.0	JFM-0810-05
8.0		10.0	15.0	6.0	1.0	JFM-0810-06
8.0		10.0	15.0	7.0	1.0	JFM-0810-07
8.0		10.0	15.0	8.0	1.0	JFM-0810-08
8.0	+0.025	10.0	15.0	10.0	1.0	JFM-0810-10
8.0	+0.083	10.0	12.5	10.0	1.0	JFM-0810125-10
8.0		10.0	12.0	16.0	1.0	JFM-081012-16
8.0		10.0	14.0	10.0	1.0	JFM-081014-10
8.0		10.0	16.0	11.0	2.0	JFM-081016-11
8.0		12.0	16.0	6.0	2.0	JFM-0812-06
8.0		12.0	16.0	9.0	2.0	JFM-0812-09

³⁾ after pressfit. Testing methods ► Page 75



Order key

Type	Dimensions
J F M	-0304-03
iglidur® material	
Form F	
Metric	
Inner-Ø d1 [mm]	
Outer-Ø d2 [mm]	
Length b1 [mm]	



Dimensions according to ISO 3547-1 and special dimensions

d1	d1- Tolerance ³⁾	d2	d3 d13	b1 h13	b2 -0.14	Part No.
10.0		12.0	18.0	5.0	1.0	JFM-1012-05
10.0		12.0	18.0	9.0	1.0	JFM-1012-09
10.0		12.0	18.0	10.0	1.0	JFM-1012-10
10.0	+0.025	12.0	18.0	12.0	1.0	JFM-1012-12
10.0	+0.083	12.0	18.0	15.0	1.0	JFM-1012-15
10.0		12.0	18.0	18.0	1.0	JFM-1012-18
10.0		12.0	15.0	3.5	1.0	JFM-101215-035
10.0		14.0	17.5	14.0	1.0	JFM-1014-14
11.0		13.0	18.0	5.0	1.0	JFM-1113-05
12.0		14.0	20.0	4.0	1.0	JFM-1214-04
12.0		14.0	20.0	5.0	1.0	JFM-1214-05
12.0		14.0	20.0	7.0	1.0	JFM-1214-07
12.0	+0.032	14.0	20.0	9.0	1.0	JFM-1214-09
12.0	+0.102	14.0	20.0	12.0	1.0	JFM-1214-12
12.0		14.0	20.0	15.0	1.0	JFM-1214-15
12.0		14.0	18.0	4.5	1.0	JFM-121418-045
12.0		14.0	18.0	10.0	1.0	JFM-121418-10
12.0	+0.050	18.0	24.0	8.0	3.0	JFM-1218-08
12.0	+0.160	18.0	24.0	12.0	3.0	JFM-1218-12
12.0		18.0	22.0	20.0	3.0	JFM-1218-20
14.0		16.0	22.0	3.0	1.0	JFM-1416-03
14.0		16.0	22.0	10.0	1.0	JFM-1416-10
14.0		16.0	22.0	12.0	1.0	JFM-1416-12
14.0	+0.032	16.0	22.0	17.0	1.0	JFM-1416-17
14.0	+0.102	18.0	22.0	20.0	2.0	JFM-141822-20
14.0		18.0	25.0	24.0	2.0	JFM-141825-24
15.0		17.0	23.0	4.0	1.0	JFM-1517-04
15.0		17.0	23.0	5.5	1.0	JFM-1517-055



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Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	d3	b1	b2	Part No.
15.0		17.0	23.0	9.0	1.0	JFM-1517-09
15.0	+0.032	17.0	23.0	12.0	1.0	JFM-1517-12
15.0	+0.102	17.0	23.0	17.0	1.0	JFM-1517-17
15.0	+0.050 +0.160	21.0	27.0	20.0	3.0	JFM-1521-20
16.0		18.0	24.0	6.0	1.0	JFM-1618-06
16.0	+0.032	18.0	24.0	16.0	1.0	JFM-1618-16
16.0	+0.102	18.0	24.0	17.0	1.0	JFM-1618-17
16.0	+0.050	22.0	28.0	12.0	3.0	JFM-1622-12
16.0	+0.160	22.0	28.0	15.0	3.0	JFM-1622-15
17.0		19.0	25.0	9.0	1.0	JFM-1719-09
17.0		19.0	25.0	21.0	1.0	JFM-1719-21
18.0		20.0	26.0	4.0	1.0	JFM-1820-04
18.0	+0.032	20.0	26.0	12.0	1.0	JFM-1820-12
18.0	+0.102	20.0	26.0	22.0	1.0	JFM-1820-22
18.0		21.0	25.0	12.0	1.0	JFM-1821-12
19.0		22.0	26.0	23.0	1.0	JFM-1922-23
19.0		22.0	26.0	36.0	1.0	JFM-1922-36
20.0		23.0	30.0	11.5	1.5	JFM-2023-11
20.0	+0.040	23.0	30.0	15.5	1.5	JFM-2023-15.5
20.0	+0.124	23.0	30.0	21.5	1.5	JFM-2023-21
20.0		26.0	32.0	15.0	3.0	JFM-2026-15
20.0	+0.065	26.0	32.0	20.0	3.0	JFM-2026-20
20.0	+0.195	26.0	32.0	25.0	3.0	JFM-2026-25
22.0		25.0	32.0	8.0	1.5	JFM-222532-08
24.0		30.0	36.0	30.0	3.0	JFM-2430-30
25.0		28.0	35.0	6.0	1.5	JFM-2528-06
25.0	+0.040	28.0	35.0	12.0	1.5	JFM-2528-12
25.0	+0.124	28.0	35.0	14.5	1.5	JFM-2528-14.5
25.0		28.0	35.0	21.5	1.5	JFM-2528-21
25.0		28.0	39.0	5.0	1.5	JFM-252839-05
25.0		28.0	39.0	7.5	1.5	JFM-252839-075

d1	d1- Tolerance ³⁾	d2	d3	b1	b2	Part No.
25.0		32.0	38.0	20.0	4.0	JFM-2532-20
25.0	+0.065	32.0	38.0	25.0	4.0	JFM-2532-25
28.0	+0.195	32.0	35.0	7.0	2.0	JFM-283235-07
28.0		32.0	39.0	20.0	2.0	JFM-283239-20
30.0	+0.040	32.0	40.0	12.0	1.0	JFM-303240-12
30.0	+0.124	34.0	42.0	20.0	2.0	JFM-3034-20
30.0		34.0	42.0	26.0	2.0	JFM-3034-26
30.0	+0.080 +0.240	38.0	44.0	20.0	4.0	JFM-3038-20
30.0	+0.065	38.0	44.0	30.0	4.0	JFM-3038-30
30.0	+0.195	38.0	44.0	36.0	4.0	JFM-3038-36
35.0		39.0	47.0	12.0	2.0	JFM-3539-12
35.0		39.0	47.0	16.0	2.0	JFM-3539-16
35.0		39.0	47.0	26.0	2.0	JFM-3539-26
40.0		44.0	52.0	20.0	2.0	JFM-4044-20
40.0		44.0	52.0	30.0	2.0	JFM-4044-30
40.0	+0.050	44.0	52.0	40.0	2.0	JFM-4044-40
45.0	+0.150	50.0	58.0	12.0	2.0	JFM-4550-12
45.0		50.0	58.0	20.0	2.0	JFM-4550-20
45.0		50.0	58.0	50.0	2.0	JFM-4550-50
50.0		55.0	63.0	11.5	2.0	JFM-5055-115
50.0		55.0	63.0	50.0	2.0	JFM-5055-50
55.0		60.0	68.0	50.0	2.0	JFM-5560-50
60.0		65.0	73.0	37.0	2.0	JFM-6065-37
60.0	+0.060	65.0	73.0	50.0	2.0	JFM-6065-50
60.0	+0.180	70.0	78.0	60.0	2.0	JFM-6570-60
70.0		75.0	83.0	50.0	2.0	JFM-7075-50
90.0		95.0	103.0	100.0	2.5	JFM-9095-100
100.0	+0.072	105.0	113.0	100.0	2.5	JFM-100105-100
110.0	+0.212	115.0	123.0	100.0	2.5	JFM-110115-100
120.0		125.0	133.0	100.0	2.5	JFM-120125-100

³⁾ after pressfit. Testing methods ► Page 75

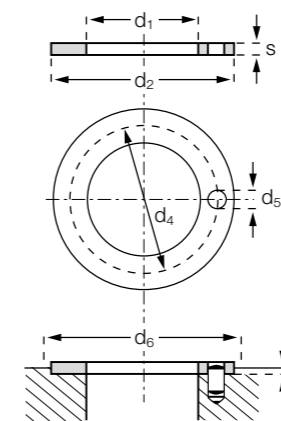
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i Dimensions according to ISO 3547-1 and special dimensions

Dimensions [mm]

d1	d2	s	d4	d5	h	d6	Part No.
+0.25	-0.25	-0.05	-0.12 +0.12	+0.375 +0.125	+0.2 -0.2	+0.12	
12.0	24.0	1.5	18.0	1.5	1.0	24.0	JTM-1224-015
12.0	34.0	1.5	⁴⁾	⁴⁾	1.0	34.0	JTM-1234-015
14.0	20.0	1.5	⁴⁾	⁴⁾	1.0	20.0	JTM-1420-015
20.0	36.0	1.5	28.0	3.0	1.0	36.0	JTM-2036-015
28.0	42.0	2.0	38.0	4.0	1.0	48.0	JTM-2842-020
30.0	39.0	1.5	⁴⁾	⁴⁾	1.0	39.0	JTM-3039-015
56.0	70.0	1.0	⁴⁾	⁴⁾	0.7	70.0	JTM-5670-010
139.0	188.0	2.0	⁴⁾	⁴⁾	1.5	188.0	JTM-139188-020

⁴⁾ Design without fixing bore

Order key

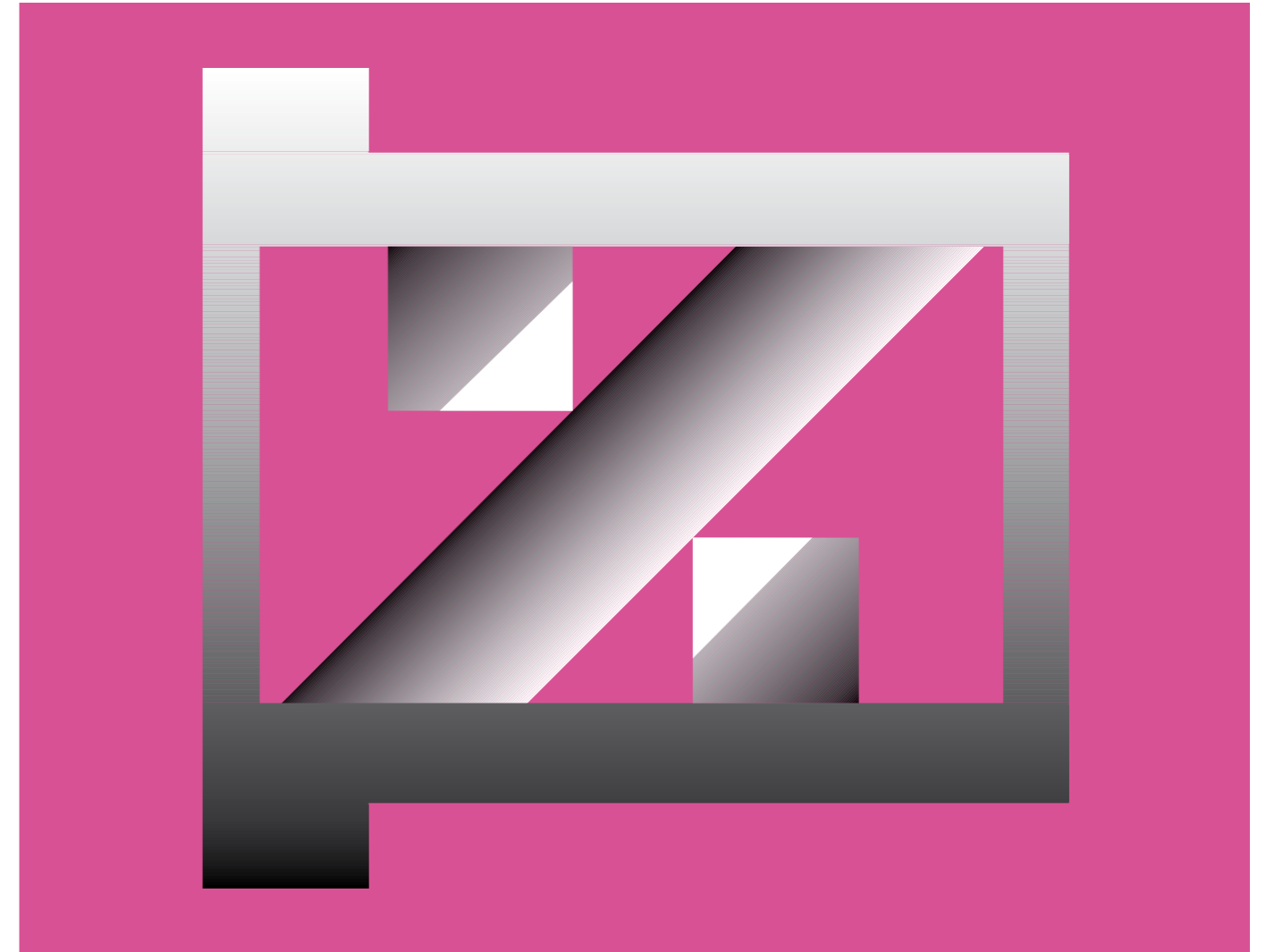
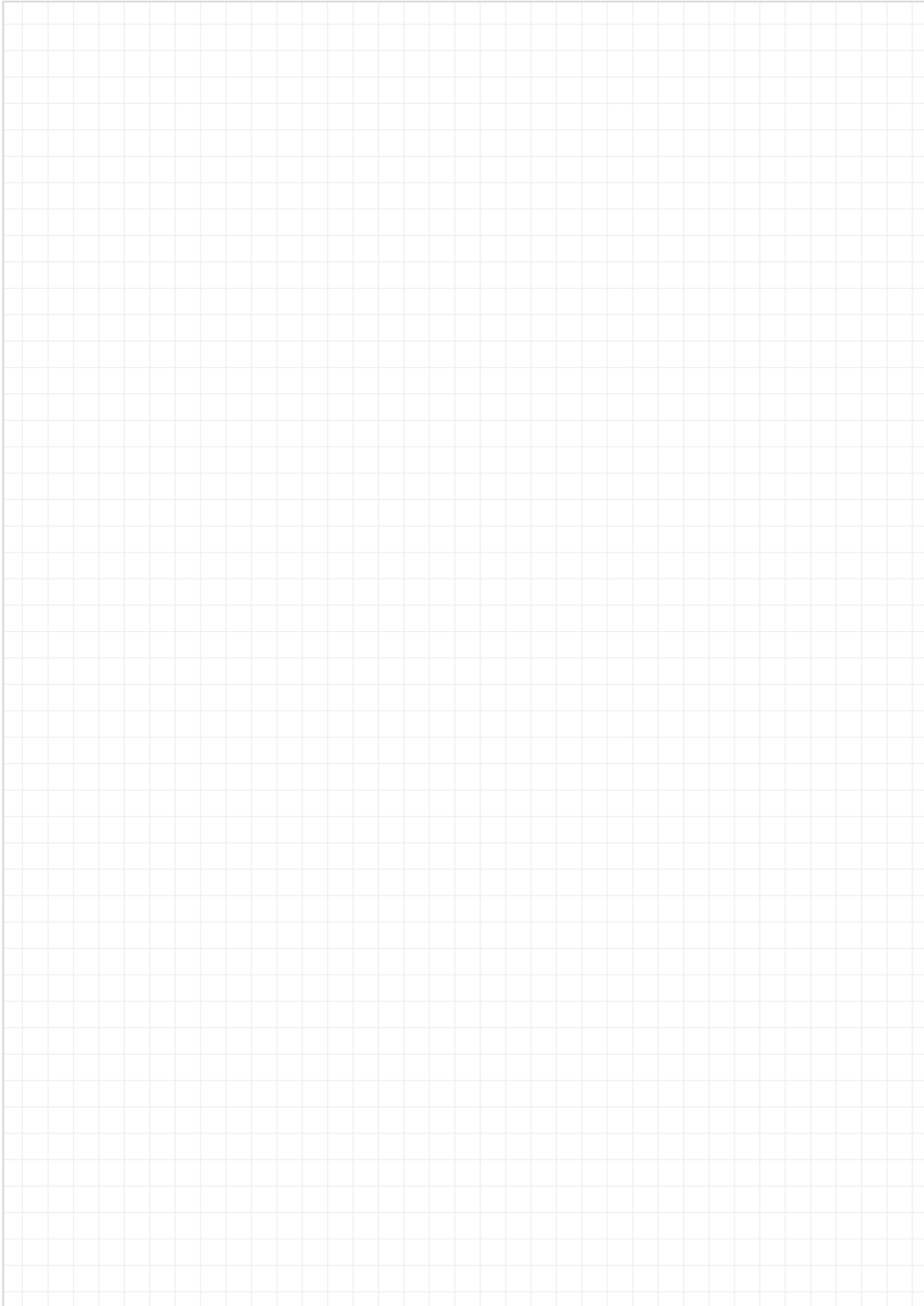
Type Dimensions

J T M-1224-015

iglidur® material	Form T	Metric	Inner-Ø d1 [mm]	Outer-Ø d2 [mm]	Thickness s [mm]
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Don't find your size?

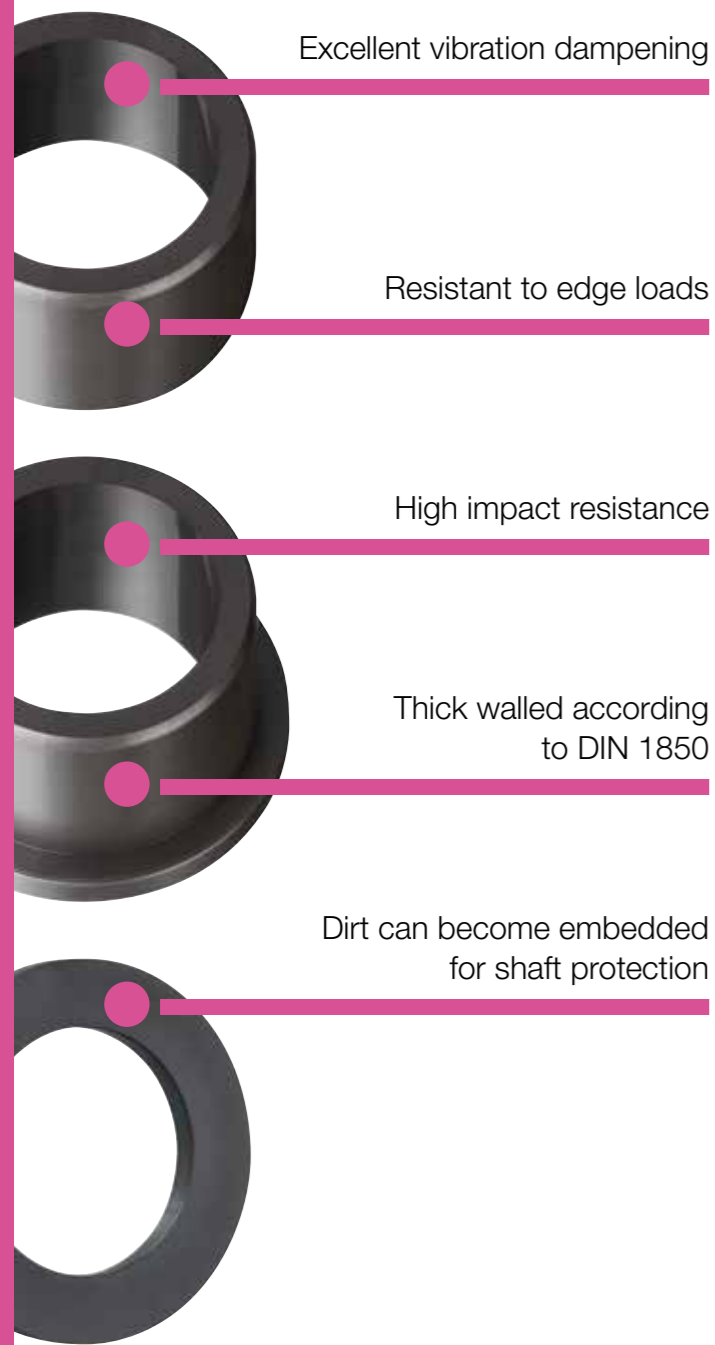
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Excellent vibration dampening: thick and tough – iglidur® M250

- More than 450 dimensions from stock
- Excellent vibration dampening
- Resistant to edge loads
- High impact resistance
- Thick-walled according to DIN 1850
- Dirt can become embedded for shaft protection
- Lubrication and maintenance free

Excellent vibration dampening.



The self lubricating plain bearings made from iglidur® 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.



When to use it?

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



When not to use it?

- For applications in wet areas
▶ iglidur® H, page 283
- When very high precision is necessary
▶ iglidur® P, page 149
- For very smooth shafts
▶ iglidur® J, page 99
- When a cost-effective wear resistant bearing is required
▶ iglidur® R, page 223

max. +80 °C
min. -40 °C

Ø 1–75 mm
more dimensions on request



Inch dimensions available
▶ **From page 1183**

Available from stock
Detailed information about delivery time online.

Block pricing online
No minimum order value. From batch size 1

Typical application areas
● Agricultural industry ● Furniture/ industrial design ● Textile technology ● Doors and gates ● Machine building etc.

Material properties table

General properties	Unit	iglidur® M250	Testing method
Density	g/cm ³	1.14	
Colour		charcoal	
Max. moisture absorption at +23 °C/50 % r.h.	% weight	1.4	DIN 53495
Max. water absorption	% weight	7.6	
Coefficient of sliding friction, dynamic against steel	μ	0.18–0.40	
pv value, max. (dry)	MPa · m/s	0.12	
Mechanical properties			
Modulus of elasticity	MPa	2,700	DIN 53457
Tensile strength at +20 °C	MPa	112	DIN 53452
Compressive strength	MPa	52	
Max. recommended surface pressure (+20 °C)	MPa	20	
Shore-D hardness		79	DIN 53505
Physical and thermal properties			
Max. long term application temperature	°C	+80	
Max. short term application temperature	°C	+170	
Min. application temperature	°C	-40	
Thermal conductivity	W/m · K	0.24	ASTM C 177
Coefficient of thermal expansion (at +23 °C)	K ⁻¹ · 10 ⁻⁵	10	DIN 53752
Electrical properties			
Specific volume resistance	Ωcm	> 10 ¹³	DIN IEC 93
Surface resistance	Ω	> 10 ¹¹	DIN 53482

Table 01: Material properties table

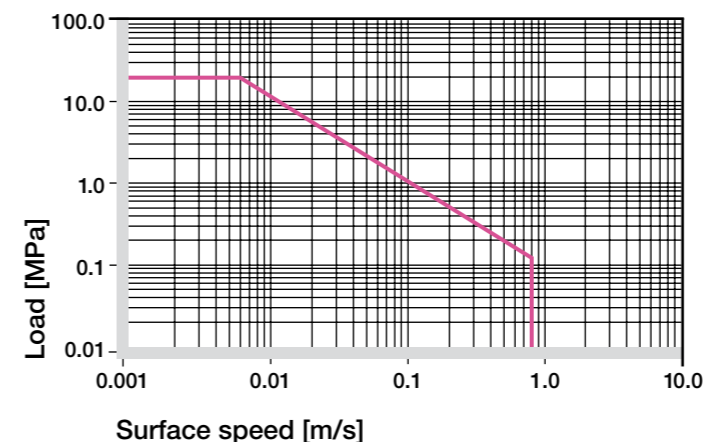


Diagram 01: Permissible pv values for iglidur® M250 bearings with a wall thickness of 1 mm dry running against a steel shaft, at +20 °C, mounted in a steel housing

Moisture absorption

The moisture absorption of iglidur® M250 plain bearings is approximately 1.4 % in ambient conditions. The saturation limit in water is 7.5 %. This must be taken into account along with other environmental influences.

▶ **Diagram, www.igus.eu/m250-moisture**

Vacuum

iglidur® M250 plain bearings outgas in a vacuum. The relatively high moisture absorption of the bearing allows only limited use in vacuum.

Radiation resistance

Plain bearings made from iglidur® M250 have limited use under radioactive radiation. They are resistant up to a radiation intensity of 1 x 10⁴ Gy.

UV resistance

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

Medium	Resistance
Alcohol	+ to 0
Hydrocarbons	+
Greases, oils without additives	+
Fuels	+
Diluted acids	0 to –
Strong acids	–
Diluted alkalines	+
Strong alkalines	0

+ resistant 0 conditionally resistant – not resistant

All data given at room temperature [+20 °C]

Table 02: Chemical resistance

▶ **Chemical table, page 1226**

The self lubricating plain bearings made from iglidur® 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.

Mechanical properties

With increasing temperatures, the compressive strength of iglidur® M250 plain bearings decreases. The diagram 02 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.

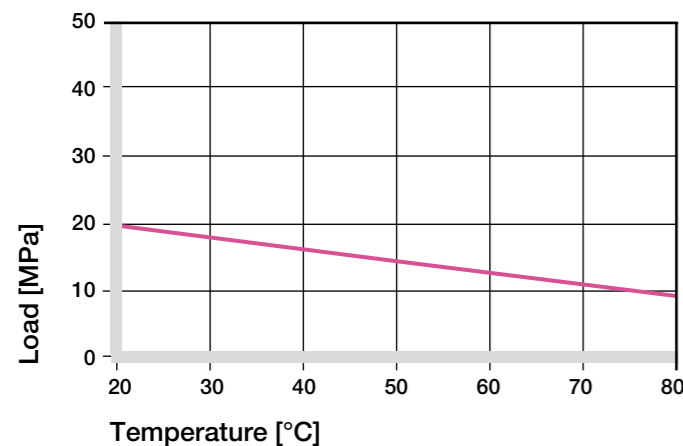


Diagram 02: Recommended maximum surface pressure of as a function of temperature (20 MPa at +20 °C)

iglidur® M250 bearings can withstand radial loads of a maximum 20 MPa. Compared with other iglidur® materials iglidur® M250 bearings are highly elastic. By this elasticity, they are able to yield very well, but retain their original shape again. A plastic deformation is minimal up to the permissible surface pressure.

► Surface pressure, page 63

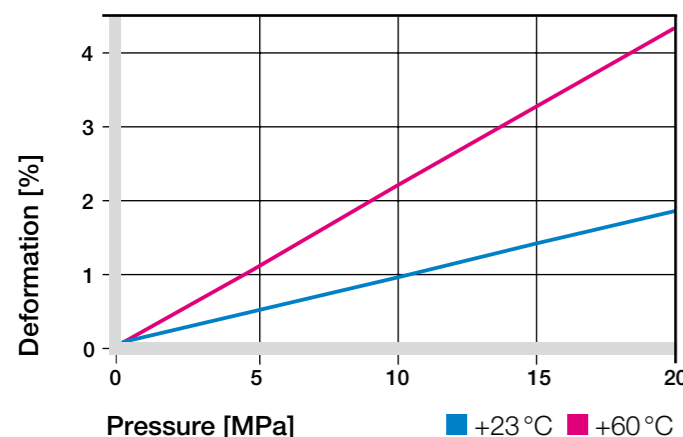


Diagram 03: Deformation under pressure and temperature

Permissible surface speeds

As standard, iglidur® M250 is manufactured as a thick walled bearing. iglidur® M250 is best suited for low to medium surface speeds. The maximum permissible speed for dry running applications is 0.8 m/s (rotating) or 2.5 m/s (linear). In practice, though, this temperature level is rarely reached due to varying application conditions.

► Surface speed, page 65

m/s	Rotating	Oscillating	Linear
Constant	0.8	0.6	2.5
Short term	2	1.4	5

Table 03: Maximum surface speeds

Temperatures

The maximum permissible short term temperature is +170 °C. However iglidur® M250 plain bearings may only be exposed to this temperature without any additional load. The long term permissible application temperature is +80 °C. This is also the point of the wear limit, i.e. the temperature over which the wear increases exponentially. At temperatures over +60 °C an additional securing is required.

► Application temperatures, page 66

► Additional securing, page 67

Friction and wear

The coefficient of friction μ of a plain bearing among other factors is influenced by the surface speed and the load (diagrams 04 and 05).

► Coefficients of friction and surfaces, page 68

► Wear resistance, page 69

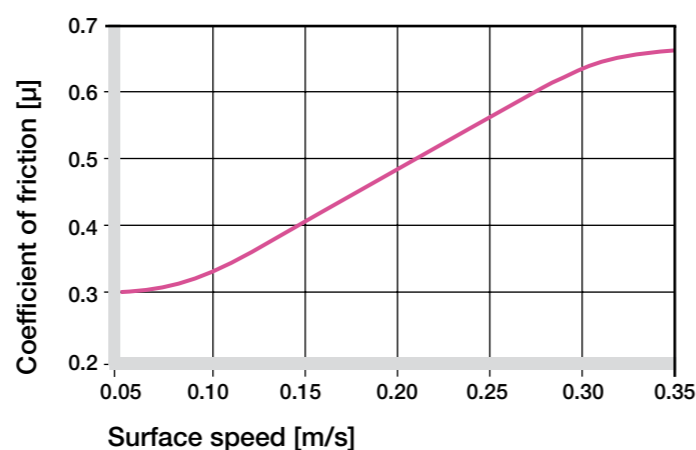


Diagram 04: Coefficient of friction as a function of the surface speed, p = 0.75 MPa

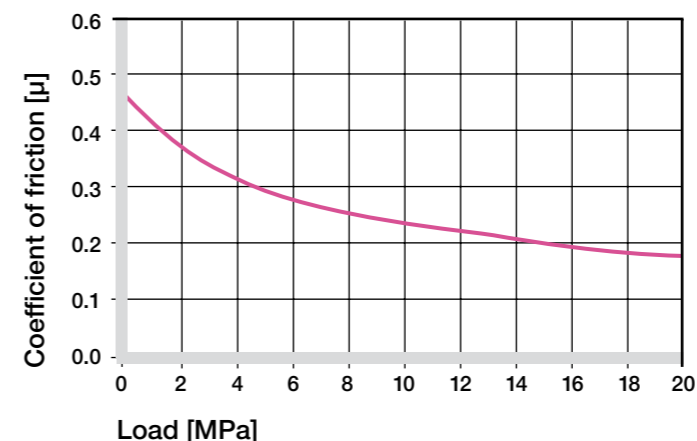


Diagram 05: Coefficient of friction as a function of the pressure, v = 0.01 m/s

Shaft materials

Friction and wear also depend to a high degree on the reverse partner. If you observe the coefficient of friction, then the ideal shaft surface finish for iglidur® M250 bearings is Ra = 0.6 mm. Diagrams 06 and 07 show results of testing different shaft materials with plain bearings made of iglidur® M250. Up to loads of 2 MPa the shaft material plays a relatively small role for rotational movements. Therefore, a suitable shaft material must be considered for higher loads. These are hardened shafts, such as cold-rolled steel or hard chromed shafts. Diagram 07 makes it clear that iglidur® M250 is considerably better for rotational than for oscillating operation. However, it must be mentioned that in oscillating movements, often the vibrations acting on the bearing are especially high. Here, iglidur® M250 can utilise 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

iglidur® M250	Dry	Greases	Oil	Water
C.o.f. μ	0.18–0.40	0.09	0.04	0.04

Table 04: Coefficient of friction against steel (Ra = 1 μ m, 50 HRC)

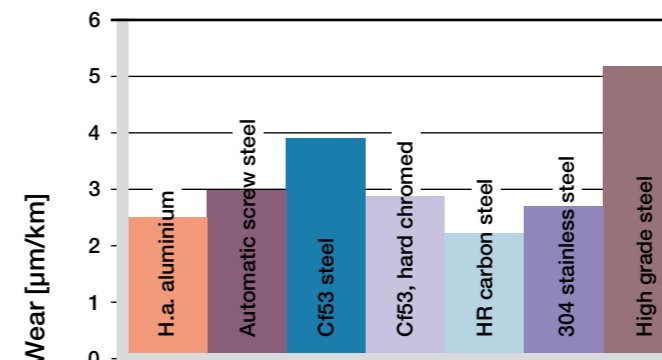


Diagram 06: Wear, rotating with different shaft materials, pressure, p = 1 MPa, v = 0.3 m/s

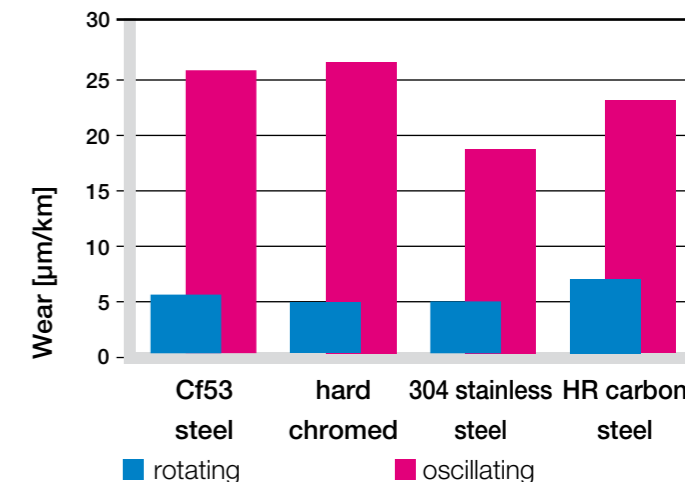


Diagram 07: Wear for rotating and oscillating applications with different shaft materials, p = 2 MPa

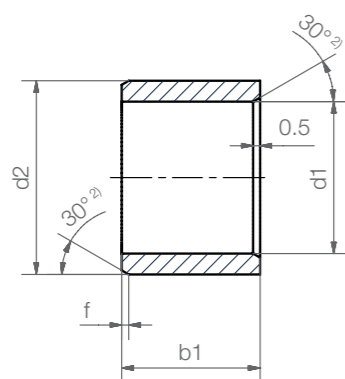
Installation tolerances

iglidur® M250 plain bearings require a relatively large amount of clearance for optimal operation. This ensures that the bearing remains reliable during temperature change and water absorption. The disadvantages of the bearings clearance are minimised by the vibration dampening properties. The bearings are designed for pressfit into a housing machined to a H7 tolerance. After being assembled into a nominal size housing, in standard cases the inner diameter automatically adjusts to the D11 tolerances. For particular dimensions the tolerance differs depending on the wall thickness (please see product range table). The shaft should have a recommended minimum h9 tolerance.

► Testing methods, page 75

Diameter d1 [mm]	Shaft h9 [mm]	iglidur® M250 D11 [mm]	Housing H7 [mm]
up to 3	0–0.025	+0.020 +0.080	0 +0.010
> 3 to 6	0–0.030	+0.030 +0.105	0 +0.012
> 6 to 10	0–0.036	+0.040 +0.130	0 +0.015
> 10 to 18	0–0.043	+0.050 +0.160	0 +0.018
> 18 to 30	0–0.052	+0.065 +0.195	0 +0.021
> 30 to 50	0–0.062	+0.080 +0.240	0 +0.025
> 50 to 80	0–0.074	+0.100 +0.290	0 +0.030

Table 05: Important tolerances for plain bearings according to ISO 3547-1 after pressfit



Order key

Type	Dimensions
M S M	-0103-02
iglidur® material	
Form S	
Metric	
Inner-Ø d1 [mm]	
Outer-Ø d2 [mm]	
Length b1 [mm]	



Dimensions according to DIN 1850 and special dimensions

²⁾ thickness < 1 mm, chamfer = 20°

Chamfer in relation to the d1

d1 [mm]:	Ø 1-6	Ø 6-12	Ø 12-30	Ø > 30
f [mm]:	0.3	0.5	0.8	1.2

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
1.0		3.0	2.0	MSM-0103-02
1.5		4.0	2.0	MSM-0104-02
2.0		5.0	1.0	MSM-0205-01
2.0		5.0	2.0	MSM-0205-02
2.0	+0.020	5.0	3.0	MSM-0205-03
2.5	+0.080	6.0	3.0	MSM-0206-03
3.0		5.0	3.0	MSM-0305-03
3.0		5.0	4.0	MSM-0305-04
3.0		6.0	3.0	MSM-0306-03
3.0		6.0	4.0	MSM-0306-04
4.0		7.0	3.0	MSM-0407-03
4.0		7.0	4.0	MSM-0407-04
4.0		7.0	6.0	MSM-0407-06
4.0		8.0	4.0	MSM-0408-04
4.0		8.0	6.0	MSM-0408-06
5.0		8.0	4.0	MSM-0508-04
5.0		8.0	5.0	MSM-0508-05
5.0		8.0	8.0	MSM-0508-08
5.0	+0.030	9.0	5.0	MSM-0509-05
5.0	+0.105	9.0	8.0	MSM-0509-08
6.0		8.0	10.0	MSM-0608-10
6.0		9.0	6.0	MSM-0609-06
6.0		10.0	2.5	MSM-0610-02
6.0		10.0	4.0	MSM-0610-04
6.0		10.0	6.0	MSM-0610-06
6.0		10.0	8.0	MSM-0610-08
6.0		10.0	10.0	MSM-0610-10
6.0		11.0	4.0	MSM-0611-04

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
6.0	+0.030	12.0	6.0	MSM-0612-06
6.0	+0.105	12.0	10.0	MSM-0612-10
7.0		10.0	5.0	MSM-0710-05
7.0		10.0	8.0	MSM-0710-08
7.0		10.0	10.0	MSM-0710-10
7.0		11.0	16.0	MSM-0711-16
8.0		10.0	6.0	MSM-0810-06
8.0		10.0	8.0	MSM-0810-08
8.0		10.0	10.0	MSM-0810-10
8.0		11.0	6.0	MSM-0811-06
8.0		11.0	8.0	MSM-0811-08
8.0		11.0	12.0	MSM-0811-12
8.0		12.0	4.0	MSM-0812-04
8.0		12.0	6.0	MSM-0812-06
8.0	+0.040	12.0	8.0	MSM-0812-08
8.0	+0.130	12.0	10.0	MSM-0812-10
8.0		12.0	12.0	MSM-0812-12
8.0		14.0	6.0	MSM-0814-06
8.0		14.0	10.0	MSM-0814-10
9.0		12.0	14.0	MSM-0912-14
10.0		14.0	6.0	MSM-1014-06
10.0		14.0	8.0	MSM-1014-08
10.0		14.0	10.0	MSM-1014-10
10.0		14.0	16.0	MSM-1014-16
10.0		16.0	6.0	MSM-1016-06
10.0		16.0	8.0	MSM-1016-08
10.0		16.0	10.0	MSM-1016-10
10.0		16.0	16.0	MSM-1016-16

³⁾ after pressfit. Testing methods ► Page 75

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
10.0	+0.040 +0.130	16.0	50.0	MSM-1016-50
12.0		14.0	15.0	MSM-1214-15
12.0		14.0	20.0	MSM-1214-20
12.0		16.0	15.0	MSM-1216-15
12.0		16.0	20.0	MSM-1216-20
12.0		18.0	8.0	MSM-1218-08
12.0		18.0	10.0	MSM-1218-10
12.0		18.0	15.0	MSM-1218-15
12.0		18.0	20.0	MSM-1218-20
14.0		16.0	8.5	MSM-1416-085
14.0		16.0	10.0	MSM-1416-10
14.0		16.0	15.0	MSM-1416-15
14.0		16.0	20.0	MSM-1416-20
14.0		16.0	29.0	MSM-1416-29
14.0		18.0	20.0	MSM-1418-20
14.0		20.0	10.0	MSM-1420-10
14.0		20.0	15.0	MSM-1420-15
14.0		20.0	20.0	MSM-1420-20
15.0		17.0	10.0	MSM-1517-10
15.0	+0.050	17.0	15.0	MSM-1517-15
15.0	+0.160	21.0	10.0	MSM-1521-10
15.0		21.0	15.0	MSM-1521-15
15.0		21.0	20.0	MSM-1521-20
15.0		21.0	23.0	MSM-1521-23
16.0		18.0	12.0	MSM-1618-12
16.0		18.0	20.0	MSM-1618-20
16.0		20.0	20.0	MSM-1620-20
16.0		20.0	25.0	MSM-1620-25
16.0		20.0	30.0	MSM-1620-30
16.0		21.0	7.0	MSM-1621-07
16.0		22.0	12.0	MSM-1622-12
16.0		22.0	15.0	MSM-1622-15
16.0		22.0	16.0	MSM-1622-16
16.0		22.0	20.0	MSM-1622-20
16.0		22.0	25.0	MSM-1622-25
16.0		24.0	12.0	MSM-1824-12
18.0		24.0	20.0	MSM-1824-20
18.0		24.0	30.0	MSM-1824-30
18.0		24.0	40.0	MSM-1824-40
20.0		23.0	15.0	MSM-2023-15
20.0		23.0	20.0	MSM-2023-20
20.0	+0.065 +0.195	23.0	25.0	MSM-2023-25
20.0		25.0	14.0	MSM-2025-14
20.0		25.0	20.0	MSM-2025-20

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
20.0		25.0	30.0	MSM-2025-30
20.0		26.0	12.0	MSM-2026-12
20.0		26.0	15.0	MSM-2026-15
20.0		26.0	20.0	MSM-2026-20
20.0		26.0	30.0	MSM-2026-30
22.0		24.0	8.0	MSM-2224-08
22.0		26.0	15.0	MSM-2226-15
22.0		28.0	10.0	MSM-2228-10
22.0		28.0	15.0	MSM-2228-15
22.0		28.0	20.0	MSM-2228-20
22.0		28.0	30.0	MSM-2228-30
24.0		30.0	15.0	MSM-2430-15
24.0		30.0	20.0	MSM-2430-20
24.0		30.0	30.0	MSM-2430-30
25.0		28.0	12.0	MSM-2528-12
25.0		28.0	20.0	MSM-2528-20
25.0		30.0	20.0	MSM-2530-20
25.0	+0.065	30.0	30.0	MSM-2530-30
25.0	+0.195	30.0	40.0	MSM-2530-40
25.0		32.0	10.0	MSM-2532-10
25.0		32.0	12.0	MSM-2532-12
25.0		32.0	20.0	MSM-2532-20
25.0		32.0	30.0	MSM-2532-30
25.0		32.0	35.0	MSM-2532-35
25.0		32.0	40.0	MSM-2532-40
26.0		30.0	20.0	MSM-2630-20
26.0		32.0	30.0	MSM-2632-30
27.0		34.0	20.0	MSM-2734-20
27.0		34.0	30.0	MSM-2734-30
27.0		34.0	40.0	MSM-2734-40
28.0		33.0	20.0	MSM-2833-20
28.0		36.0	20.0	MSM-2836-20
28.0		36.0	30.0	MSM-2836-30
28.0		36.0	40.0	MSM-2836-40
30.0		35.0	20.0	MSM-3035-20
30.0		35.0	40.0	MSM-3035-40
30.0	+0.032 +0.102	38.0	3.0	MSM-3038-03
30.0	+0.065 +0.195	38.0	4.5	MSM-3038-045
30.0	+0.080 +0.240	38.0	17.0	MSM-3038-17
30.0	+0.065 +0.195	38.0	20.0	MSM-3038-20
30.0		38.0	30.0	MSM-3038-30
30.0		38.0	40.0	MSM-3038-40

³⁾ after pressfit. Testing methods ► Page 75

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
30.0	+0.065 +0.195	40.0	40.0	MSM-3040-40
32.0		40.0	20.0	MSM-3240-20
32.0	+0.080	40.0	30.0	MSM-3240-30
32.0	+0.240	40.0	40.0	MSM-3240-40
35.0		42.0	50.0	MSM-3542-50
40.0		46.0	20.0	MSM-4046-20
75.0	+0.100 +0.290	80.0	60.0	MSM-7580-60

³⁾ after pressfit. Testing methods ► Page 75

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²⁾ thickness < 1 mm, chamfer = 20°

Chamfer in relation to the d1

d1 [mm]:	Ø 1-6	Ø 6-12	Ø 12-30	Ø > 30
f [mm]:	0.3	0.5	0.8	1.2

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	d3 d13	b1 h13	b2 -0.14	Part No.
1.0		3.0	5.0	2.0	1.0	MFM-0103-02
1.5		4.0	6.0	2.0	1.0	MFM-0104-02
2.0	+0.020	5.0	8.0	3.0	1.5	MFM-0205-03
2.5	+0.080	6.0	9.0	3.0	1.5	MFM-0206-03
3.0		6.0	9.0	4.0	1.5	MFM-0306-04
4.0		8.0	12.0	4.0	2.0	MFM-0408-04
4.0		8.0	12.0	6.0	2.0	MFM-0408-06
4.0		8.0	12.0	8.0	2.0	MFM-0408-08
5.0		9.0	13.0	5.0	2.0	MFM-0509-05
5.0		9.0	13.0	6.0	2.0	MFM-0509-06
5.0	+0.030	9.0	13.0	8.0	2.0	MFM-0509-08
6.0	+0.105	10.0	14.0	4.0	2.0	MFM-0610-04
6.0		10.0	14.0	6.0	2.0	MFM-0610-06
6.0		10.0	14.0	10.0	2.0	MFM-0610-10
6.0		11.0	14.0	4.0	2.0	MFM-0611-04
6.0		12.0	14.0	6.0	3.0	MFM-0612-06
6.0		12.0	14.0	10.0	3.0	MFM-0612-10
7.0		11.0	15.0	6.0	2.0	MFM-0711-06
7.0		11.0	15.0	8.0	2.0	MFM-0711-08
8.0		9.0	13.0	5.5	0.5	MFM-0809-055
8.0		11.0	13.0	5.0	2.0	MFM-0811-05
8.0		11.0	13.0	8.0	2.0	MFM-0811-08
8.0	+0.040	12.0	16.0	6.0	2.0	MFM-0812-06
8.0	+0.130	12.0	16.0	8.0	2.0	MFM-0812-08
8.0		12.0	16.0	12.0	2.0	MFM-0812-12
8.0		14.0	18.0	6.0	3.0	MFM-0814-06
8.0		14.0	18.0	10.0	3.0	MFM-0814-10
8.0		14.0	16.0	6.0	3.0	MFM-081416-06

³⁾ after pressfit. Testing methods ► Page 75



Order key

Type

Dimensions

M F M - 0103-02

iglidur® material	Form F	Metric	Inner-Ø d1 [mm]	Outer-Ø d2 [mm]	Length b1 [mm]
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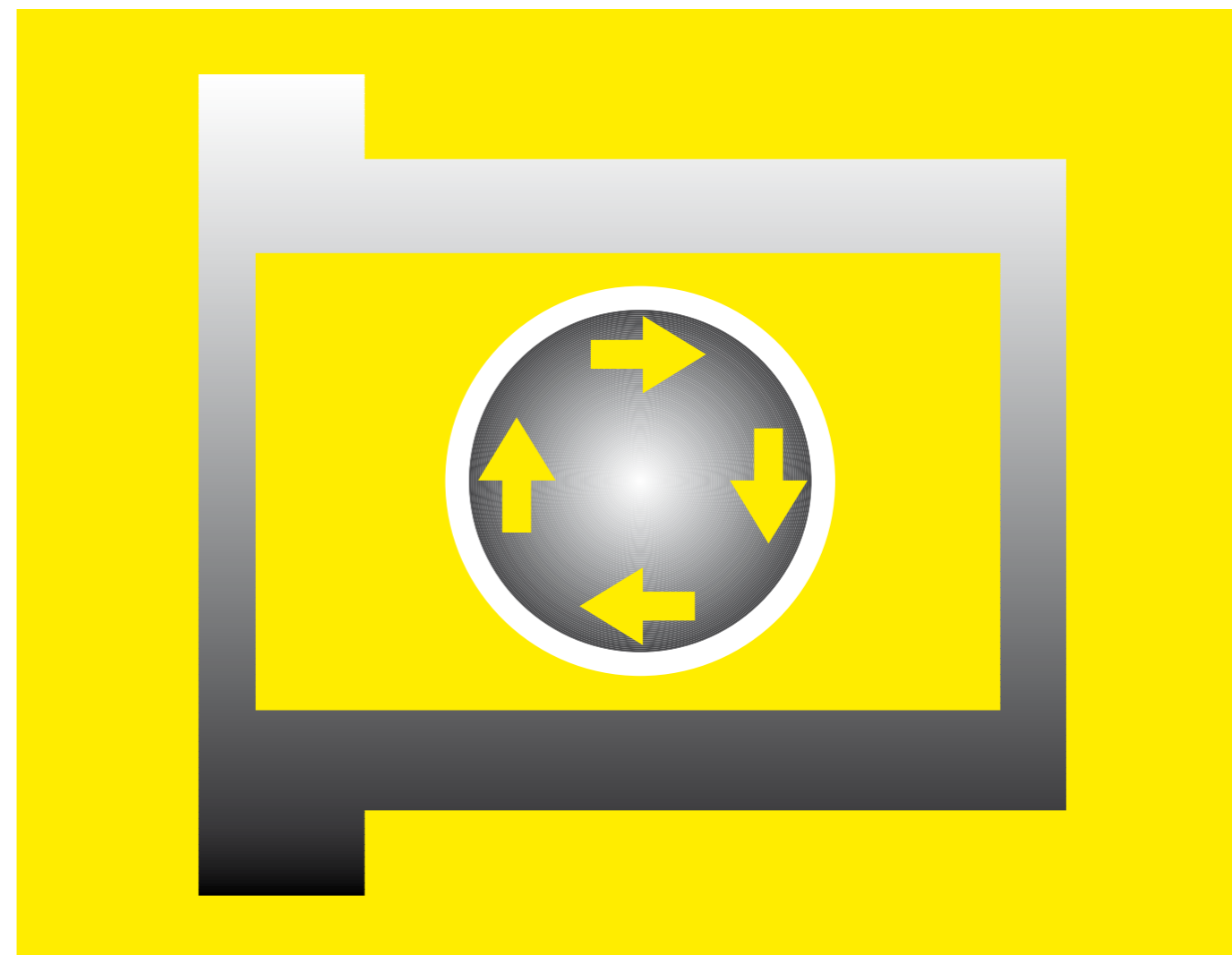
Dimensions according to DIN 1850 and special dimensions

d1	d1- Tolerance ³⁾	d2	d3 d13	b1 h13	b2 -0.14	Part No.
8.0		14.0	16.0	10.0	3.0	MFM-081416-10
9.0		14.0	19.0	6.0	2.0	MFM-0914-06
9.0		14.0	19.0	10.0	2.0	MFM-0914-10
9.0		14.0	19.0	14.0	2.0	MFM-0914-14
10.0		14.0	19.0	10.0	2.0	MFM-1014-10
10.0		14.0	17.5	14.0	1.0	MFM-1014-14
10.0		14.0	17.5	19.0	1.0	MFM-1014-19
10.0		14.0	17.5	24.0	1.0	MFM-1014-24
10.0	+0.040	14.0	17.5	34.0	1.0	MFM-1014-34
10.0	+0.130	14.0	19.0	8.0	2.0	MFM-101419-08
10.0		14.0	19.0	12.0	1.5	MFM-101419-12
10.0		14.0	20.0	12.0	2.0	MFM-101420-12
10.0		16.0	22.0	8.0	3.0	MFM-1016-08
10.0		16.0	22.0	10.0	3.0	MFM-1016-10
10.0		16.0	22.0	16.0	3.0	MFM-1016-16
10.0		16.0	20.0	6.0	3.0	MFM-101620-06
10.0		16.0	20.0	10.0	3.0	MFM-101620-10
12.0		16.0	22.0	10.0	2.0	MFM-1216-10
12.0		16.0	22.0	20.0	2.0	MFM-1216-20
12.0		18.0	24.0	8.0	3.0	MFM-1218-08
12.0		18.0	22.0	10.0	3.0	MFM-1218-10
12.0		18.0	24.0	12.0	3.0	MFM-1218-12
12.0	+0.050	18.0	22.0	15.0	3.0	MFM-1218-15
12.0	+0.160	18.0	22.0	20.0	3.0	MFM-1218-20
13.0		15.0	20.0	14.0	2.0	MFM-1315-14
13.0		16.0	24.0	8.0	2.0	MFM-131624-08
14.0		20.0	25.0	7.0	3.0	MFM-1420-07
14.0		20.0	25.0	10.0	3.0	MFM-1420-10

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	d3	b1	b2	Part No.	d1	d1- Tolerance ³⁾	d2	d3	b1	b2	Part No.
			d13	h13	-0.14					d13	h13	-0.14	
14.0		20.0	25.0	15.0	3.0	MFM-1420-15	22.0		28.0	34.0	20.0	3.0	MFM-2228-20
14.0		20.0	25.0	20.0	3.0	MFM-1420-20	22.0		28.0	34.0	30.0	3.0	MFM-2228-30
15.0		21.0	27.0	10.0	3.0	MFM-1521-10	24.0		30.0	36.0	15.0	3.0	MFM-2430-15
15.0		21.0	27.0	15.0	3.0	MFM-1521-15	24.0		30.0	36.0	20.0	3.0	MFM-2430-20
15.0		21.0	27.0	20.0	3.0	MFM-1521-20	24.0		30.0	36.0	30.0	3.0	MFM-2430-30
15.0		21.0	27.0	25.0	3.0	MFM-1521-25	25.0		32.0	38.0	12.0	4.0	MFM-2532-12
16.0		18.0	28.0	8.0	2.0	MFM-1618-08/02	25.0		32.0	38.0	15.0	4.0	MFM-2532-15
16.0		18.0	24.0	12.0	1.0	MFM-1618-12	25.0		32.0	38.0	20.0	4.0	MFM-2532-20
16.0	+0.050	22.0	28.0	12.0	3.0	MFM-1622-12	25.0		32.0	38.0	30.0	4.0	MFM-2532-30
16.0	+0.160	22.0	28.0	15.0	3.0	MFM-1622-15	25.0	+0.065	32.0	38.0	40.0	4.0	MFM-2532-40
16.0		22.0	28.0	20.0	3.0	MFM-1622-20	27.0	+0.195	34.0	40.0	20.0	4.0	MFM-2734-20
16.0		22.0	28.0	25.0	3.0	MFM-1622-25	27.0		34.0	40.0	30.0	4.0	MFM-2734-30
18.0		24.0	30.0	8.0	3.0	MFM-1824-08	27.0		34.0	40.0	40.0	4.0	MFM-2734-40
18.0		24.0	30.0	12.0	3.0	MFM-1824-12	28.0		36.0	42.0	20.0	4.0	MFM-2836-20
18.0		24.0	30.0	18.0	3.0	MFM-1824-18	28.0		36.0	42.0	30.0	4.0	MFM-2836-30
18.0		24.0	30.0	20.0	3.0	MFM-1824-20	28.0		36.0	42.0	40.0	4.0	MFM-2836-40
18.0		24.0	30.0	30.0	3.0	MFM-1824-30	30.0		35.0	44.0	20.0	4.0	MFM-3035-20
18.0		24.0	26.0	7.8	3.0	MFM-182426-078	30.0		38.0	44.0	20.0	4.0	MFM-3038-20
19.0		24.0	27.0	12.0	2.0	MFM-192427-12	30.0		38.0	44.0	30.0	4.0	MFM-3038-30
20.0		26.0	32.0	15.0	3.0	MFM-2026-15	30.0		38.0	44.0	40.0	4.0	MFM-3038-40
20.0	+0.065	26.0	32.0	20.0	3.0	MFM-2026-20	32.0	+0.080	40.0	46.0	20.0	4.0	MFM-3240-20
20.0	+0.195	26.0	28.0	12.0	3.0	MFM-202628-12	32.0	+0.240	40.0	46.0	30.0	4.0	MFM-3240-30
20.0		26.0	32.0	30.0	3.0	MFM-2026-30	32.0		40.0	46.0	40.0	4.0	MFM-3240-40
22.0		28.0	34.0	15.0	3.0	MFM-2228-15							

³⁾ after pressfit. Testing methods ► Page 75



Low wear on all shafts: the marathon runner – iglidur® W300

- More than 400 dimensions from stock
- For especially long service life
- Low coefficient of friction
- Extremely high wear resistance
- Also suitable for soft shafts
- Resistant to dirt
- Lubrication and maintenance free



Don't find your size?

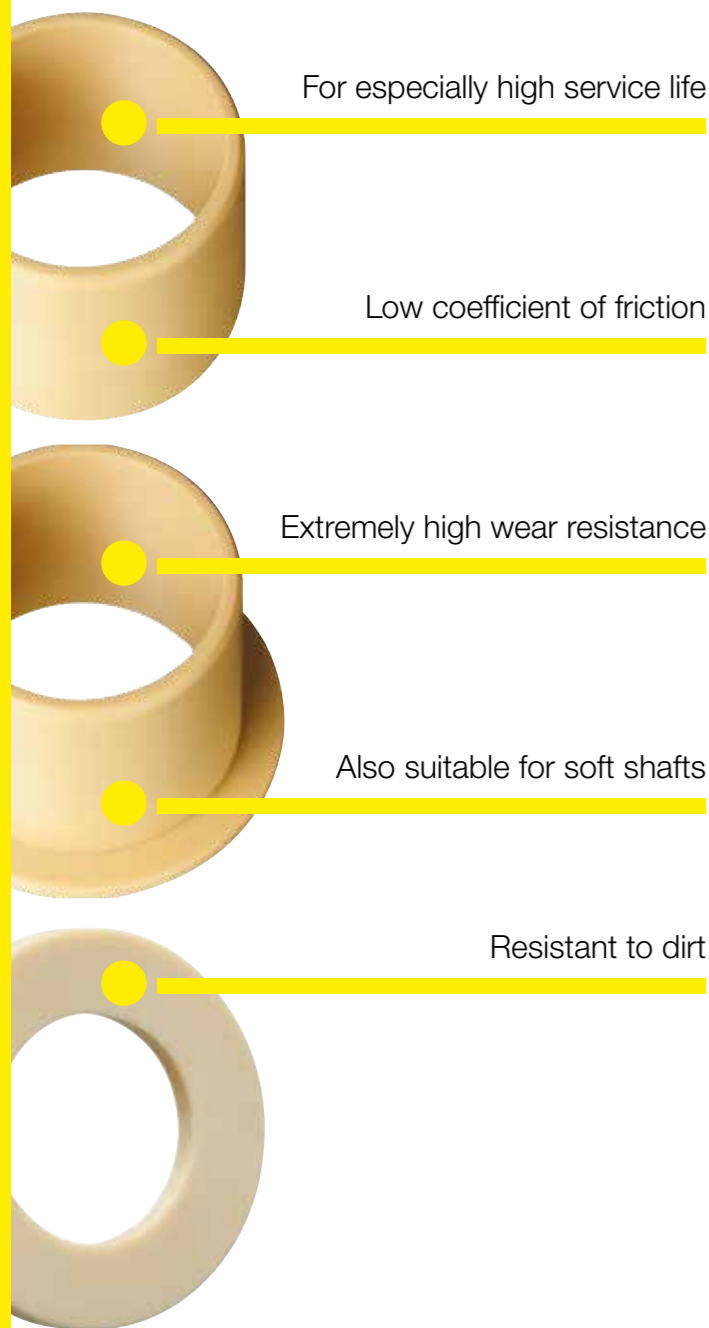
Do you need another length, other dimensions or tolerances? You need a particular design or alternative for your application? Please call us. igus® listens to your needs and provides you a solution in a very short time.



Even more dimensions from stock

More than 300 dimensions are now available. Search online for your required bearing.

► www.igus.eu/iglidur-specialbearings



The iglidur® W300 material gives excellent wear resistance, even in harsh environments or when used with rough shafts. Of all iglidur® materials, iglidur® W300 is the most resistant to these conditions.



When to use it?

- 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 shafts
- Dirt resistant



When not to use it?

- For high loads starting at 50 MPa
▶ iglidur® Q, page 401
- When temperatures are constantly above +90 °C
▶ iglidur® H, page 283
▶ iglidur® X, page 133
- For very wet environments
▶ iglidur® P, page 149
- When an economical bearing is required
▶ iglidur® G, page 83



Available from stock

Detailed information about delivery time online.



max. +90 °C
min. -40 °C



Block pricing online

No minimum order value. From batch size 1



Ø 2–120 mm
more dimensions
on request



Inch dimensions available
▶ From page 1183



Typical application areas

- Automation ● Printing industry
- Woodworking ● Mechatronics ● Test engineering and quality assurance etc.

Material properties table

General properties	Unit	iglidur® W300	Testing method
Density	g/cm ³	1.24	
Colour		yellow	
Max. moisture absorption at +23 °C/50 % r.h.	% weight	1.3	DIN 53495
Max. water absorption	% weight	6.5	
Coefficient of sliding friction, dynamic against steel	μ	0.08–0.23	
pv value, max. (dry)	MPa · m/s	0.23	
Mechanical properties			
Modulus of elasticity	MPa	3,500	DIN 53457
Tensile strength at +20 °C	MPa	125	DIN 53452
Compressive strength	MPa	61	
Max. recommended surface pressure (+20 °C)	MPa	60	
Shore-D hardness		77	DIN 53505
Physical and thermal properties			
Max. long term application temperature	°C	+90	
Max. short term application temperature	°C	+180	
Min. application temperature	°C	-40	
Thermal conductivity	W/m · K	0.24	ASTM C 177
Coefficient of thermal expansion (at +23 °C)	K ⁻¹ · 10 ⁻⁵	9	DIN 53752
Electrical properties			
Specific volume resistance	Ωcm	> 10 ¹³	DIN IEC 93
Surface resistance	Ω	> 10 ¹²	DIN 53482

Table 01: Material properties table

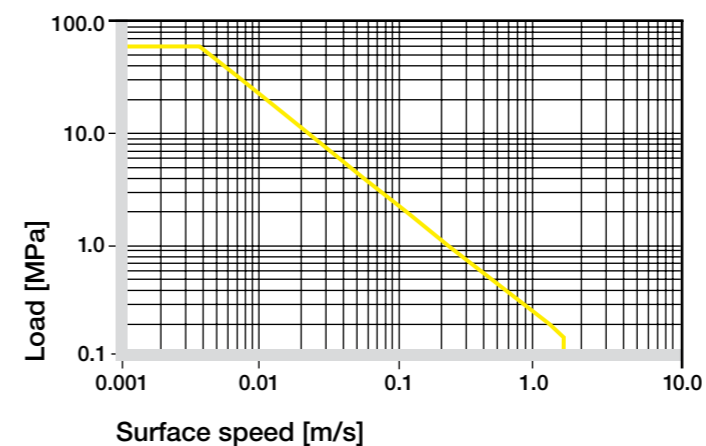


Diagram 01: Permissible pv values for iglidur® W300 bearings with a wall thickness of 1 mm dry running against a steel shaft, at +20 °C, mounted in a steel housing

Moisture absorption

The moisture absorption of iglidur® W300 plain bearings is approximately 1.3 % weight in ambient conditions. The saturation limit submerged in water is 6.5 %. This must be taken into account along with other environmental influences.

▶ Diagram, www.igus.eu/w300-moisture

Vacuum

iglidur® W300 plain bearings outgas in a vacuum. Its use in vacuum is only possible to a limited extent.

Radiation resistance

Plain bearings made from iglidur® W300 are resistant to radiation up to an intensity of 3 · 10² Gy.

UV resistance

iglidur® W300 plain bearings are permanently resistant to UV radiation. A slight change in colour will not significantly influence their properties.

Medium	Resistance
Alcohol	+ to 0
Hydrocarbons	+
Greases, oils without additives	+
Fuels	+
Diluted acids	0 to -
Strong acids	-
Diluted alkalines	+
Strong alkalines	0

+ resistant 0 conditionally resistant - not resistant

All data given at room temperature [+20 °C]

Table 02: Chemical resistance

▶ Chemical table, page 1226

iglidur® W300 gives excellent wear resistance, even in harsh environments or when used with rough shafts. This material is the most tolerant of these external effects out of all the iglidur® range.

Mechanical properties

With increasing temperatures, the compressive strength of iglidur® W300 plain bearings decreases. The diagram 02 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.

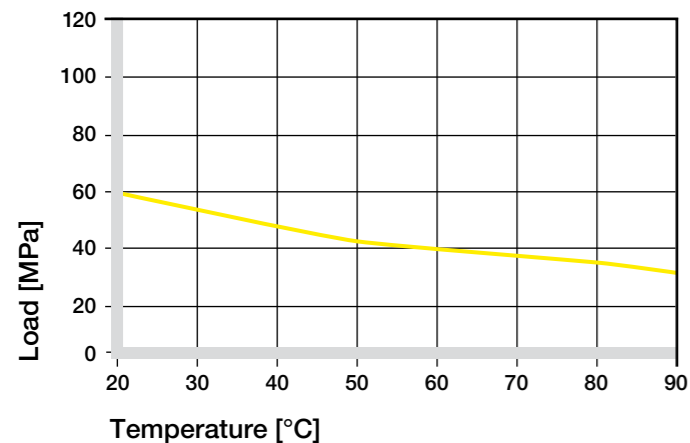


Diagram 02: Recommended maximum surface pressure of as a function of temperature (60 MPa at +20 °C)

iglidur® W300 presents a very high compression strength in spite of its high elasticity. Diagram 03 shows the elastic deformation of iglidur® W300 under radial loads.

At the recommended maximum surface pressure of 60 MPa the deformation is less than 3%.

► Surface pressure, page 63

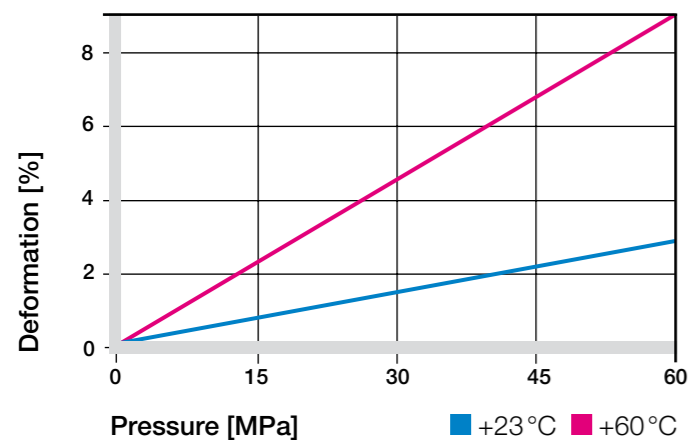


Diagram 03: Deformation under pressure and temperature

Permissible surface speeds

Even at higher surface speeds, the coefficients of friction for iglidur® W300 do not increase. Therefore, compared to other materials, higher surface speeds can be obtained, for example, up to 1.5 m/s rotating and up to 5 m/s linear. The bearing wear remains low when used for long periods at high speeds, due to exceptional wear resistance. Relatively high speeds can be obtained with iglidur® W300 bearings on hardened shafts with the recommended surface finish.

► Surface speed, page 65

m/s	Rotating	Oscillating	Linear
Continuous	1	0.7	4
Short term	2.5	1.8	6

Table 03: Maximum surface speeds

Temperatures

iglidur® W300 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. At temperatures over +60 °C an additional securing is required.

► Application temperatures, page 66

► Additional securing, page 67

Friction and wear

Similar to wear resistance, the coefficient of friction also changes with the load. In contrast to other iglidur® materials, the coefficient of friction of iglidur® W300 remains consistently low at higher rotational speeds.

► Coefficients of friction and surfaces, page 68

► Wear resistance, page 69

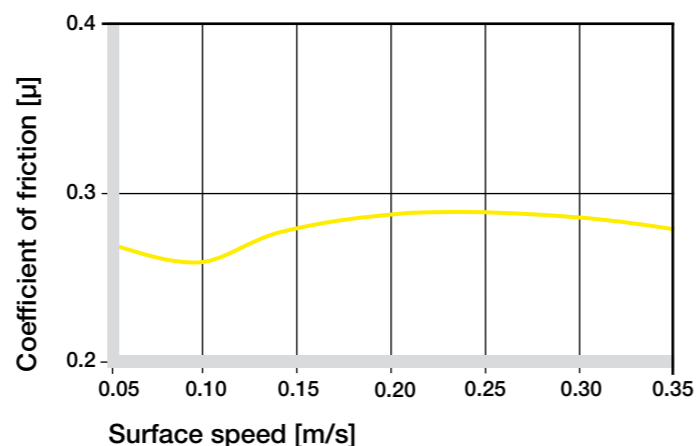


Diagram 04: Coefficient of friction as a function of the surface speed, p = 0.75 MPa

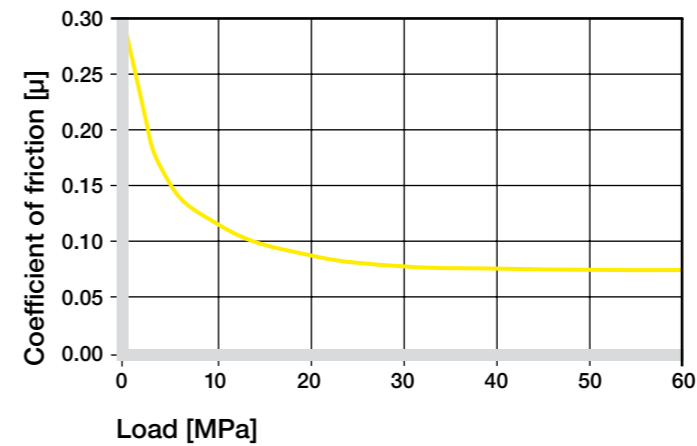


Diagram 05: Coefficient of friction as a function of the pressure, v = 0.01 m/s

Shaft materials

Friction and wear are to a large extent also highly dependant on the shaft materials. 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 usually the result of shafts that are too smooth. Shaft roughnesses of 0.4 to 0.5 μm have proven to be the best. Tests with iglidur® W300 have shown the wear resistance at this roughness is very high, while the friction reduces to the lowest value. Diagram 06 shows results of testing different shafts. Hardened shafts are preferred for applications for higher loads.

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

► Shaft materials, page 71

iglidur® W300	Dry	Greases	Oil	Water
C. o. f. μ	0.08–0.23	0.09	0.04	0.04

Table 04: Coefficient of friction against steel (Ra = 1 μm, 50 HRC)

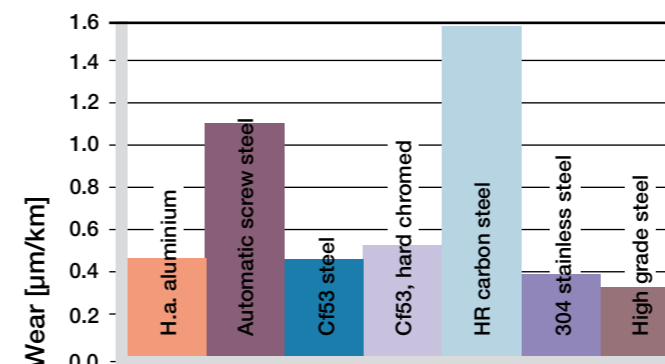


Diagram 06: Wear, rotating with different shaft materials, p = 1 MPa, v = 0.3 m/s

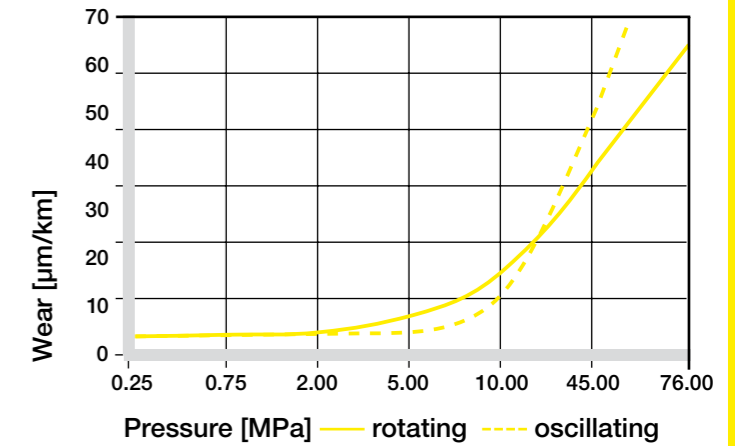


Diagram 07: Wear for oscillating and rotating applications with shaft material Cf53 hardened and ground steel, as a function of the pressure

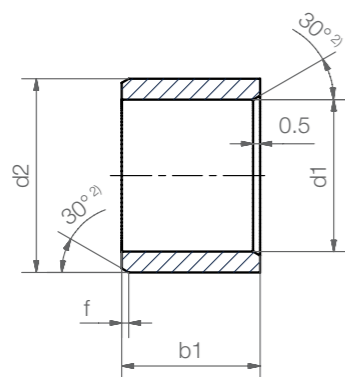
Installation tolerances

iglidur® W300 plain bearings are standard bearings for shafts with h-tolerance (recommended minimum h9). The bearings are designed for pressfit into a housing machined to a H7 tolerance. After being assembled into a nominal size housing, in standard cases the inner diameter automatically adjusts to the E10 tolerances. For specific dimensions the tolerance differs depending on the wall thickness (please see the product range table).

► Testing methods, page 75

Diameter d1 [mm]	Shaft h9 [mm]	iglidur® W300 E10 [mm]	Housing H7 [mm]	
up to 3	3	0–0.025	+0.014 +0.054	0 +0.010
> 3 to 6	6	0–0.030	+0.020 +0.068	0 +0.012
> 6 to 10	10	0–0.036	+0.025 +0.083	0 +0.015
> 10 to 18	18	0–0.043	+0.032 +0.102	0 +0.018
> 18 to 30	30	0–0.052	+0.040 +0.124	0 +0.021
> 30 to 50	50	0–0.062	+0.050 +0.150	0 +0.025
> 50 to 80	80	0–0.074	+0.060 +0.180	0 +0.030
> 80 to 120	120	0–0.087	+0.072 +0.212	0 +0.035
>120 to 180	180	0–0.100	+0.085 +0.245	0 +0.040

Table 05: Important tolerances for plain bearings according to ISO 3547-1 after pressfit



Order key

Type **W S M** -0203-03

iglidur® material	Form S	Metric	Inner-Ø d1 [mm]	Outer-Ø d2 [mm]	Length b1 [mm]
W	S	M	02	03	03



Dimensions according to ISO 3547-1 and special dimensions

²⁾ thickness < 1 mm, chamfer = 20°

Chamfer in relation to the d1

d1 [mm]:	Ø 1-6	Ø 6-12	Ø 12-30	Ø > 30
f [mm]:	0.3	0.5	0.8	1.2

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
2.0		3.5	3.0	WSM-0203-03
2.0		4.0	1.8	WSM-0204-018
2.5	+0.014	4.0	3.0	WSM-0204-03
3.0	+0.054	4.5	3.0	WSM-0304-03
3.0		4.5	5.0	WSM-0304-05
3.0		4.5	6.0	WSM-0304-06
4.0		5.5	4.0	WSM-0405-04
4.0		5.5	6.0	WSM-0405-06
4.0	+0.020	5.5	8.0	WSM-0405-08
4.0	+0.068	5.5	10.0	WSM-0405-10
5.0		7.0	5.0	WSM-0507-05
5.0		7.0	8.0	WSM-0507-08
5.0		7.0	10.0	WSM-0507-10
6.0	+0.010	7.0	14.0	WSM-0607-14
6.0	+0.058			
6.0		8.0	6.0	WSM-0608-06
6.0		8.0	8.0	WSM-0608-08
6.0	+0.020	8.0	9.5	WSM-0608-09
6.0	+0.068	8.0	10.0	WSM-0608-10
6.0		8.0	11.8	WSM-0608-11
6.0		8.0	13.8	WSM-0608-13
7.0		9.0	9.0	WSM-0709-09
7.0		9.0	12.0	WSM-0709-12
7.0		9.0	12.5	WSM-0709-125
8.0	+0.025	10.0	6.0	WSM-0810-06
8.0	+0.083	10.0	8.0	WSM-0810-08
8.0		10.0	10.0	WSM-0810-10
8.0		10.0	12.0	WSM-0810-12

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
8.0		10.0	13.8	WSM-0810-13
8.0		10.0	15.0	WSM-0810-15
8.0		10.0	16.0	WSM-0810-16
8.0		10.0	20.0	WSM-0810-20
8.0		10.0	21.0	WSM-0810-21
9.0		11.0	6.0	WSM-0911-06
10.0		12.0	4.0	WSM-1012-04
10.0	+0.025	12.0	6.0	WSM-1012-06
10.0	+0.083	12.0	8.0	WSM-1012-08
10.0		12.0	9.0	WSM-1012-09
10.0		12.0	10.0	WSM-1012-10
10.0		12.0	12.0	WSM-1012-12
10.0		12.0	15.0	WSM-1012-15
10.0		12.0	17.0	WSM-1012-17
10.0		12.0	20.0	WSM-1012-20
10.0		12.0	25.5	WSM-1012-25.5
11.0		13.0	8.0	WSM-1113-08
12.0		14.0	4.0	WSM-1214-04
12.0		14.0	5.0	WSM-1214-05
12.0		14.0	6.0	WSM-1214-06
12.0		14.0	8.0	WSM-1214-08
12.0	+0.032	14.0	10.0	WSM-1214-10
12.0	+0.102	14.0	12.0	WSM-1214-12
12.0		14.0	15.0	WSM-1214-15
12.0		14.0	20.0	WSM-1214-20
12.0		14.0	25.0	WSM-1214-25
13.0		15.0	7.0	WSM-1315-07
13.0		15.0	10.0	WSM-1315-10

³⁾ after pressfit. Testing methods ► Page 75

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
13.0		15.0	15.0	WSM-1315-15
13.0		15.0	20.0	WSM-1315-20
14.0		16.0	7.25	WSM-1416-07
14.0		16.0	10.0	WSM-1416-10
14.0		16.0	15.0	WSM-1416-15
14.0		16.0	20.0	WSM-1416-20
14.0		16.0	25.0	WSM-1416-25
14.0		16.0	33.0	WSM-1416-33
15.0		17.0	10.0	WSM-1517-10
15.0		17.0	15.0	WSM-1517-15
15.0		17.0	20.0	WSM-1517-20
15.0		17.0	25.0	WSM-1517-25
16.0		18.0	7.0	WSM-1618-07
16.0	+0.032	18.0	8.0	WSM-1618-08
16.0	+0.102	18.0	11.5	WSM-1618-11
16.0		18.0	12.0	WSM-1618-12
16.0		18.0	15.0	WSM-1618-15
16.0		18.0	20.0	WSM-1618-20
16.0		18.0	25.0	WSM-1618-25
16.0		18.0	30.0	WSM-1618-30
16.0		18.0	35.0	WSM-1618-35
16.0		18.0	45.0	WSM-1618-45
18.0		20.0	12.0	WSM-1820-12
18.0		20.0	15.0	WSM-1820-15
18.0		20.0	20.0	WSM-1820-20
18.0		20.0	25.0	WSM-1820-25
18.0		20.0	33.0	WSM-1820-33
18.0		20.0	35.0	WSM-1820-35
19.0		22.0	28.0	WSM-1922-28
20.0		22.0	11.5	WSM-2022-11
20.0		22.0	12.0	WSM-2022-12
20.0		22.0	15.0	WSM-2022-15
20.0		22.0	20.0	WSM-2022-20
20.0		22.0	30.0	WSM-2022-30
20.0		23.0	8.0	WSM-2023-08
20.0		23.0	12.0	WSM-2023-12
20.0	+0.040	23.0	15.0	WSM-2023-15
20.0	+0.124	23.0	20.0	WSM-2023-20
20.0		23.0	23.0	WSM-2023-23
20.0		23.0	25.0	WSM-2023-25
20.0		23.0	30.0	WSM-2023-30
22.0		24.0	15.0	WSM-2224-15
22.0		24.0	20.0	WSM-2224-20
22.0		24.0	30.0	WSM-2224-30
22.0		24.0	35.0	WSM-2224-35

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
22.0		24.0	45.0	WSM-2224-45
22.0		25.0	15.0	WSM-2225-15
22.0		25.0	20.0	WSM-2225-20
22.0		25.0	25.0	WSM-2225-25
22.0		25.0	30.0	WSM-2225-30
24.0		27.0	15.0	WSM-2427-15
24.0		27.0	20.0	WSM-2427-20
24.0		27.0	25.0	WSM-2427-25
24.0		27.0	30.0	WSM-2427-30
25.0		28.0	12.0	WSM-2528-12
25.0		28.0	14.0	WSM-2528-14
25.0		28.0	15.0	WSM-2528-15
25.0		28.0	20.0	WSM-2528-20
25.0		28.0	25.0	WSM-2528-25
25.0		28.0	30.0	WSM-2528-30
25.0		28.0	50.0	WSM-2528-50
26.0	+0.040	30.0	16.0	WSM-2630-16
26.0	+0.124	30.0	25.0	WSM-2630-25
28.0		30.0	10.0	WSM-2830-10
28.0		31.0	10.0	WSM-2831-10
28.0		32.0	20.0	WSM-2832-20
28.0		32.0	25.0	WSM-2832-25
28.0		32.0	30.0	WSM-2832-30
30.0		34.0	16.0	WSM-3034-16
30.0		34.0	20.0	WSM-3034-20
30.0		34.0	24.0	WSM-3034-24
30.0		34.0	25.0	WSM-3034-25
30.0		34.0	30.0	WSM-3034-30
30.0		34.0	36.0	WSM-3034-36
30.0		34.0	38.0	WSM-3034-38
30.0		34.0	40.0	WSM-3034-40
30.0		34.0	45.0	WSM-3034-45
30.0		34.0	47.0	WSM-3034-47
32.0		36.0	20.0	WSM-3236-20
32.0		36.0	25.0	WSM-3236-25
32.0		36.0	30.0	WSM-3236-30
32.0		36.0	40.0	WSM-3236-40
35.0		39.0	20.0	WSM-3539-20
35.0	+0.050	39.0	30.0	WSM-3539-30
35.0	+0.150	39.0	40.0	WSM-3539-40
35.0		39.0	50.0	WSM-3539-50
35.0		40.0	7.0	WSM-3540-07
40.0		44.0	20.0	WSM-4044-20
40.0		44.0	30.0	WSM-4044-30
40.0		44.0	40.0	WSM-4044-40

³⁾ after pressfit. Testing methods ► Page 75

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.	d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
40.0		44.0	50.0	WSM-4044-50	60.0		65.0	30.0	WSM-6065-30
45.0		50.0	30.0	WSM-4550-30	60.0		65.0	60.0	WSM-6065-60
45.0		50.0	50.0	WSM-4550-50	65.0		70.0	60.0	WSM-6570-60
50.0	+0.050	55.0	20.0	WSM-5055-20	70.0	+0.060	75.0	60.0	WSM-7075-60
50.0	+0.150	55.0	30.0	WSM-5055-30	75.0	+0.180	80.0	100.0	WSM-7580-100
50.0		55.0	40.0	WSM-5055-40	80.0		85.0	20.0	WSM-8085-20
50.0		55.0	50.0	WSM-5055-50	80.0		85.0	100.0	WSM-8085-100
50.0		55.0	55.0	WSM-5055-55	90.0	+0.072	95.0	100.0	WSM-9095-100
55.0	+0.060	60.0	40.0	WSM-5560-40	100.0	+0.212	105.0	100.0	WSM-100105-100
55.0	+0.180	60.0	60.0	WSM-5560-60					

³⁾ after pressfit. Testing methods ► Page 75



Don't find your size?

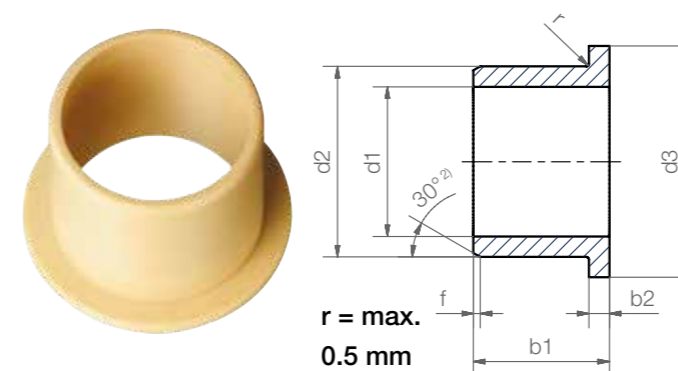
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► www.igus.eu/iglidur-specialbearings



²⁾ thickness < 1 mm, chamfer = 20°

Chamfer in relation to the d1

d1 [mm]:	Ø 1-6	Ø 6-12	Ø 12-30	Ø > 30
f [mm]:	0.3	0.5	0.8	1.2

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	d3 d13	b1 h13	b2 -0.14	Part No.
2.5		4.0	6.5	3.0	0.75	WFM-0204-03
3.0	+0.014	4.5	7.5	3.0	0.75	WFM-0304-03
3.0	+0.054	4.5	7.5	5.0	0.75	WFM-0304-05
4.0	+0.020	5.5	9.5	3.0	0.75	WFM-0405-03
4.0	+0.068	5.5	9.5	4.0	0.75	WFM-0405-04
4.0	+0.068	5.5	9.5	6.0	0.75	WFM-0405-06
5.0	+0.010	6.0	10.0	8.0	0.50	WFM-0506-08
5.0	+0.040	6.0	10.0	8.0	0.50	WFM-0506-08
5.0		7.0	11.0	4.0	1.00	WFM-0507-04
5.0		7.0	11.0	5.0	1.00	WFM-0507-05
6.0	+0.020	8.0	12.0	4.0	1.00	WFM-0608-04
6.0	+0.068	8.0	12.0	6.0	1.00	WFM-0608-06
6.0	+0.068	8.0	12.0	8.0	1.00	WFM-0608-08
6.0		8.0	12.0	10.0	1.00	WFM-0608-10
6.0		8.0	12.0	15.0	1.00	WFM-0608-15
7.0		9.0	15.0	10.0	1.00	WFM-0709-10
7.0		9.0	15.0	12.0	1.00	WFM-0709-12
8.0		10.0	15.0	2.7	1.00	WFM-0810-02
8.0		10.0	15.0	4.0	1.00	WFM-0810-04
8.0		10.0	15.0	5.5	1.00	WFM-0810-05
8.0		10.0	15.0	7.5	1.00	WFM-0810-07
8.0	+0.025	10.0	15.0	9.5	1.00	WFM-0810-09
8.0	+0.083	10.0	15.0	10.0	1.00	WFM-0810-10
8.0		10.0	15.0	23.0	1.00	WFM-0810-23
8.0		10.0	15.0	30.0	1.00	WFM-0810-30
8.0		10.0	15.0	5.0	1.00	WFM-081015-05
10.0		12.0	18.0	4.0	1.00	WFM-1012-04
10.0		12.0	18.0	5.0	1.00	WFM-1012-05

³⁾ after pressfit. Testing methods ► Page 75



Order key

Type	Dimensions
W	F
M	-0204-03
Material	
Form F	
Metric	
Inner-Ø d1 [mm]	
Outer-Ø d2 [mm]	
Length b1 [mm]	



Dimensions according to ISO 3547-1 and special dimensions

d1	d1- Tolerance ³⁾	d2	d3 d13	b1 h13	b2 -0.14	Part No.
10.0		12.0	18.0	6.0	1.00	WFM-1012-06
10.0		12.0	18.0	7.0	1.00	WFM-1012-07
10.0	+0.025	12.0	18.0	9.0	1.00	WFM-1012-09
10.0	+0.083	12.0	18.0	10.0	1.00	WFM-1012-10
10.0	+0.083	12.0	18.0	12.0	1.00	WFM-1012-12
10.0		12.0	18.0	15.0	1.00	WFM-1012-15
10.0		12.0	18.0	17.0	1.00	WFM-1012-17
12.0		14.0	20.0	4.0	1.00	WFM-1214-04
12.0		14.0	20.0	4.4	1.00	WFM-1214-044
12.0		14.0	20.0	6.0	1.00	WFM-1214-06
12.0		14.0	20.0	7.0	1.00	WFM-1214-07
12.0		14.0	20.0	9.0	1.00	WFM-1214-09
12.0		14.0	20.0	10.0	1.00	WFM-1214-10
12.0		14.0	20.0	11.0	1.00	WFM-1214-11
12.0		14.0	20.0	12.0	1.00	WFM-1214-12
12.0		14.0	20.0	15.0	1.00	WFM-1214-15
12.0		14.0	20.0	17.0	1.00	WFM-1214-17
12.0	+0.032	14.0	20.0	20.0	1.00	WFM-1214-20
13.0	+0.102	15.0	22.0	6.0	1.00	WFM-1315-06
14.0		16.0	22.0	4.0	1.00	WFM-1416-04
14.0		16.0	22.0	5.0	1.00	WFM-1416-05
14.0		16.0	22.0	8.0	1.00	WFM-1416-08
14.0		16.0	22.0	12.0	1.00	WFM-1416-12
14.0		16.0	22.0	17.0	1.00	WFM-1416-17
14.0		16.0	22.0	29.0	1.00	WFM-1416-29
15.0		17.0	23.0	9.0	1.00	WFM-1517-09
15.0		17.0	23.0	12.0	1.00	WFM-1517-12
15.0		17.0	23.0	17.0	1.00	WFM-1517-17

Flange bearing (Form F)

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	d3	b1	b2	Part No.	d1	d1- Tolerance ³⁾	d2	d3	b1	b2	Part No.
		d13	h13	-0.14					d13	h13	-0.14		
15.0		17.0	23.0	20.0	1.00	WFM-1517-20	30.0	+0.040	34.0	42.0	26.0	2.00	WFM-3034-26
16.0		18.0	24.0	9.0	1.00	WFM-1618-09	30.0	+0.124	34.0	42.0	37.0	2.00	WFM-3034-37
16.0		18.0	24.0	12.0	1.00	WFM-1618-12	32.0		36.0	40.0	16.0	2.00	WFM-3236-16
16.0		18.0	24.0	17.0	1.00	WFM-1618-17	32.0		36.0	40.0	26.0	2.00	WFM-3236-26
17.0		19.0	25.0	12.0	1.00	WFM-1719-12	35.0		39.0	47.0	9.0	2.00	WFM-3539-09
17.0	+0.032	19.0	25.0	18.0	1.00	WFM-1719-18	35.0		39.0	47.0	16.0	2.00	WFM-3539-16
17.0	+0.102	19.0	25.0	25.0	1.00	WFM-1719-25	35.0		39.0	47.0	26.0	2.00	WFM-3539-26
18.0		20.0	26.0	6.0	1.00	WFM-1820-06	35.0	+0.050	39.0	50.0	35.0	2.00	WFM-353950-35
18.0		20.0	26.0	12.0	1.00	WFM-1820-12	38.0	+0.150	42.0	50.0	22.0	2.00	WFM-3842-22
18.0		20.0	26.0	17.0	1.00	WFM-1820-17	40.0		44.0	52.0	30.0	2.00	WFM-4044-30
18.0		20.0	26.0	22.0	1.00	WFM-1820-22	40.0		44.0	52.0	40.0	2.00	WFM-4044-40
20.0		23.0	30.0	11.5	1.50	WFM-2023-11	45.0		50.0	58.0	50.0	2.00	WFM-4550-50
20.0		23.0	30.0	14.5	1.50	WFM-2023-14	50.0		55.0	63.0	40.0	2.00	WFM-5055-40
20.0		23.0	30.0	16.5	1.50	WFM-2023-16	50.0		55.0	63.0	50.0	2.00	WFM-5055-50
20.0		23.0	30.0	21.5	1.50	WFM-2023-21	55.0		60.0	68.0	60.0	2.00	WFM-5560-60
24.0		27.0	32.0	10.5	1.50	WFM-2427-10	57.0		62.0	67.0	40.0	2.00	WFM-5762-40
25.0		28.0	35.0	11.5	1.50	WFM-2528-11	60.0		65.0	73.0	60.0	2.00	WFM-6065-60
25.0	+0.040	28.0	35.0	16.5	1.50	WFM-2528-16	65.0	+0.060	70.0	78.0	60.0	2.00	WFM-6570-60
25.0	+0.124	28.0	35.0	21.0	1.50	WFM-2528-21	70.0	+0.180	75.0	83.0	100.0	2.50	WFM-7075-100
25.0		28.0	32.0	30.0	1.50	WFM-2528-30	75.0		80.0	88.0	100.0	2.50	WFM-7580-100
25.0		28.0	31.0	13.5	1.50	WFM-252831-13	80.0		85.0	93.0	100.0	2.50	WFM-8085-100
28.0		30.0	35.0	36.0	1.00	WFM-2830-36	90.0		95.0	103.0	100.0	2.50	WFM-9095-100
30.0		34.0	42.0	10.0	2.00	WFM-3034-10	100.0	+0.072	105.0	113.0	100.0	2.50	WFM-100105-100
30.0		34.0	42.0	16.0	2.00	WFM-3034-16	120.0	+0.212	125.0	133.0	100.0	2.50	WFM-120125-100

³⁾ after pressfit. Testing methods ► Page 75

Don't find your size?

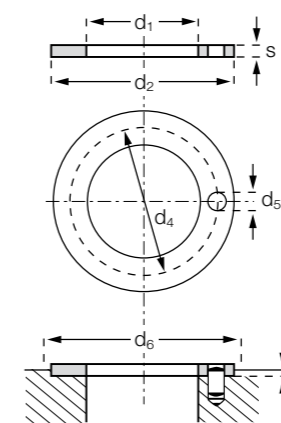
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Thrust washer (Form T)



Order key

Type Dimensions

W T M -05 09-006

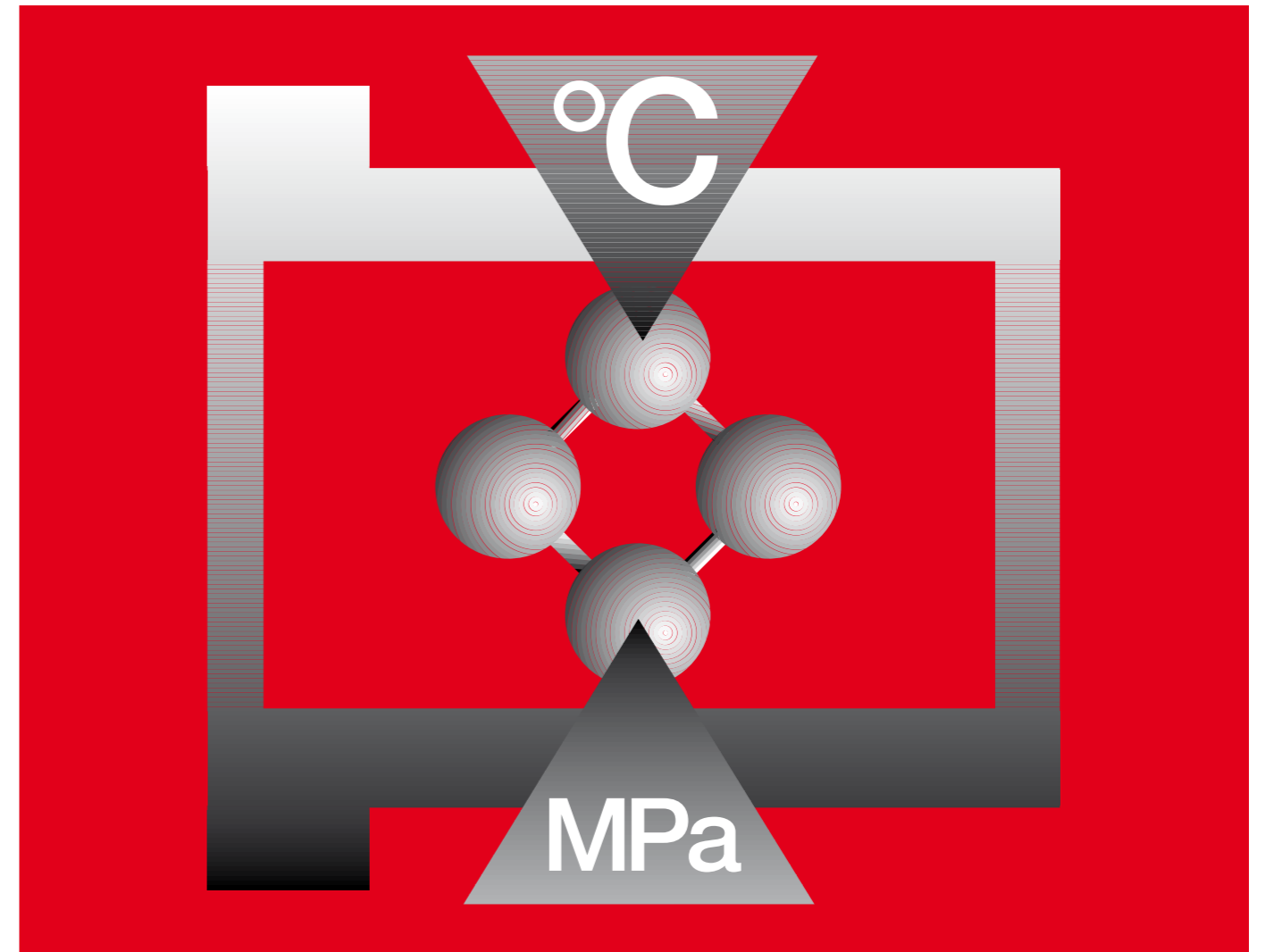
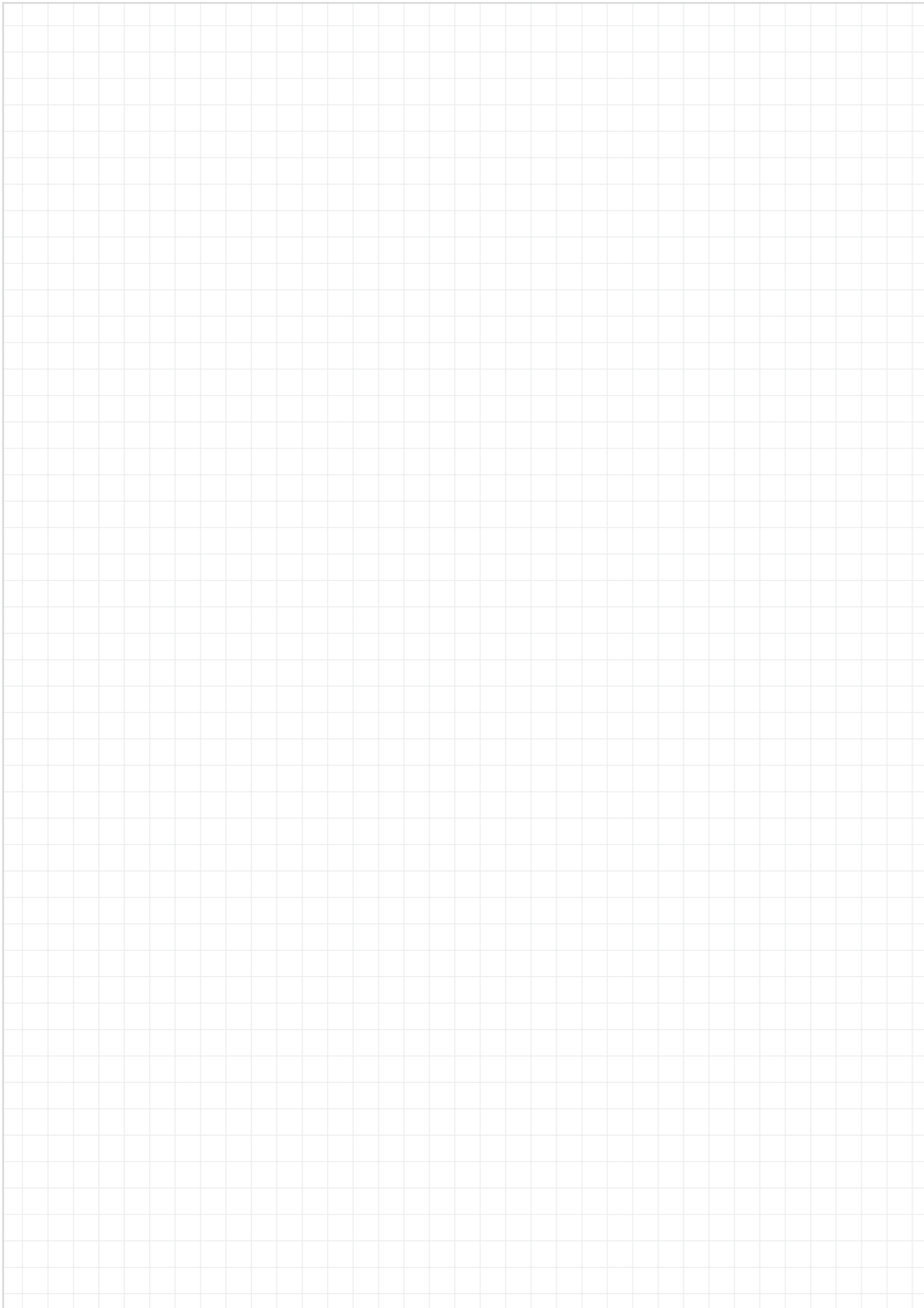
iglidur® material	Form T	Metric	Inner-Ø d1 [mm]	Outer-Ø d2 [mm]	Thickness s [mm]
-------------------	--------	--------	-----------------	-----------------	------------------

i Dimensions according to ISO 3547-1 and special dimensions

Dimensions [mm]

d1	d2	s	d4	d5	h	d6	Part No.
+0.25	-0.25	-0.05	-0.12	+0.375	+0.2	+0.12	
			+0.12	+0.125	-0.2		
5.0	9.5	0.6	⁴⁾	⁴⁾	0.3	9.5	WTM-0509-006
6.0	20.0	1.5	13.0	1.5	1.0	20.0	WTM-0620-015
8.0	18.0	1.5	13.0	1.5	1.0	18.0	WTM-0818-015
10.0	18.0	1.0	⁴⁾	⁴⁾	0.7	18.0	WTM-1018-010
10.0	18.0	1.5	⁴⁾	⁴⁾	1.0	18.0	WTM-1018-015
12.0	24.0	1.5	18.0	1.5	1.0	24.0	WTM-1224-015
14.0	26.0	1.5	20.0	2.0	1.0	26.0	WTM-1426-015
15.0	24.0	1.5	19.5	1.5	1.0	24.0	WTM-1524-015
16.0	30.0	1.5	23.0	2.0	1.0	30.0	WTM-1630-015
18.0	32.0	1.5	25.0	2.0	1.0	32.0	WTM-1832-015
18.0	44.0	1.5	30.0	7.0	1.0	44.0	WTM-1844-015
20.0	36.0	1.5	28.0	3.0	1.0	36.0	WTM-2036-015
22.0	38.0	1.5	30.0	3.0	1.0	38.0	WTM-2238-015
24.0	42.0	1.5	33.0	3.0	1.0	42.0	WTM-2442-015
26.0	44.0	1.5	35.0	3.0	1.0	44.0	WTM-2644-015
28.0	40.0	1.5	38.0	4.0	1.0	48.0	WTM-2840-015
28.0	48.0	1.5	38.0	4.0	1.0	48.0	WTM-2848-015
32.0	54.0	1.5	43.0	4.0	1.0	54.0	WTM-3254-015
38.0	62.0	1.5	50.0	4.0	1.0	62.0	WTM-3862-015
42.0	66.0	1.5	54.0	4.0	1.0	66.0	WTM-4266-015
48.0	74.0	2.0	61.0	4.0	1.5	74.0	WTM-4874-020
52.0	78.0	2.0	65.0	4.0	1.5	78.0	WTM-5278-020
62.0	90.0	2.0	76.0	4.0	1.5	90.0	WTM-6290-020
82.0	110.0	2.0	⁴⁾	⁴⁾	1.5	110.0	WTM-82110-020
102.0	130.0	2.0	⁴⁾	⁴⁾	1.5	130.0	WTM-102130-020
120.0	150.0	2.0	⁴⁾	⁴⁾	1.5	150.0	WTM-120150-020

⁴⁾ Design without fixing bore



High temperature and chemical resistance: the high-tech problem solver – iglidur® X

- More than 250 dimensions from stock
- Temperature resistant from -100°C to $+250^{\circ}\text{C}$ in continuous operation
- Universal resistance to chemicals
- High compressive strength
- Very low moisture absorption
- Excellent wear resistance through the entire temperature range

Temperature resistant from -100 °C to 250 °C in continuous operation

Universal resistance to chemicals

High compressive strength

Very low moisture absorption

Excellent wear resistance through the entire temperature range

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



When to use it?

- For pressure loads up to 150 MPa
- For linear movements with stainless steel at high temperatures
- Universal resistance to chemicals
- Temperature resistant from -100 °C to +250 °C in continuous operation (short term to +315 °C)
- Very low moisture absorption
- High wear resistance over the entire temperature range



When not to use it?

- For very low wear at high loads
 - ▶ iglidur® Q, page 401
 - ▶ iglidur® Z, page 263
- For economical underwater applications
 - ▶ iglidur® H, page 283
 - ▶ iglidur® H370, page 299
- For edge pressure
 - ▶ iglidur® Z, page 263



Available from stock

Detailed information about delivery time online.



max. +250 °C
min. -100 °C



Block pricing online

No minimum order value. From batch size 1



Ø 2–75 mm
more dimensions on request



Inch dimensions available
▶ From page 1183



Typical application areas

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

Material properties table

General properties	Unit	iglidur® X	Testing method
Density	g/cm ³	1.44	
Colour		black	
Max. moisture absorption at +23 °C/50 % r.h.	% weight	0.1	DIN 53495
Max. water absorption	% weight	0.5	
Coefficient of sliding friction, dynamic against steel	μ	0.09–0.27	
pv value, max. (dry)	MPa · m/s	1.32	
Mechanical properties			
Modulus of elasticity	MPa	8,100	DIN 53457
Tensile strength at +20 °C	MPa	170	DIN 53452
Compressive strength	MPa	100	
Max. recommended surface pressure (+20 °C)	MPa	150	
Shore-D hardness		85	DIN 53505
Physical and thermal properties			
Max. long term application temperature	°C	+250	
Max. short term application temperature	°C	+315	
Min. application temperature	°C	-100	
Thermal conductivity	W/m · K	0.6	ASTM C 177
Coefficient of thermal expansion (at +23 °C)	K ⁻¹ · 10 ⁻⁵	5	DIN 53752
Electrical properties ⁵⁾			
Specific volume resistance	Ωcm	< 10 ⁵	DIN IEC 93
Surface resistance	Ω	< 10 ³	DIN 53482

Table 01: Material properties table ⁵⁾ The good conductivity of this plastic material under certain circumstances can favour the generation of corrosion on the metallic contact components.

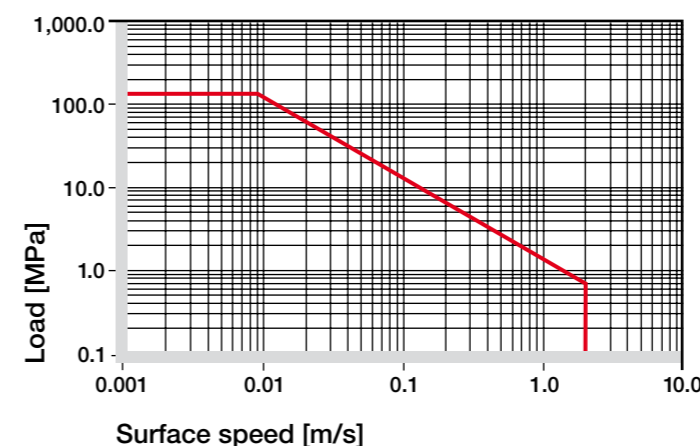


Diagram 01: Permissible pv values for iglidur® X bearings with a wall thickness of 1 mm dry running against a steel shaft, at +20 °C, mounted in a steel housing

Moisture absorption

The moisture absorption of iglidur® X plain bearings is very low. It is approximately 0.1% by weight in ambient conditions. The maximum moisture absorption is 0.5 % by weight.

▶ Diagram, www.igus.eu/x-moisture

Vacuum

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

Radiation resistance

Plain bearings made from iglidur® X are resistant to radiation up to an intensity of 1 · 10⁵ Gy.

UV resistance

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

Medium	Resistance
Alcohol	+
Hydrocarbons	+
Greases, oils without additives	+
Fuels	+
Diluted acids	+
Strong acids	-
Diluted alkalines	+
Strong alkalines	+

+ resistant 0 conditionally resistant - not resistant

All data given at room temperature [+20 °C]

Table 02: Chemical resistance

▶ Chemical table, page 1226

iglidur® X has an excellent combination of high temperature resistance, high compressive strength, and excellent resistance to chemicals. The aspect of temperature resistance and pressure susceptibility is also reflected in the pv diagram.

Mechanical properties

With increasing temperatures, the compressive strength of iglidur® X plain bearings decreases. The diagram 02 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.

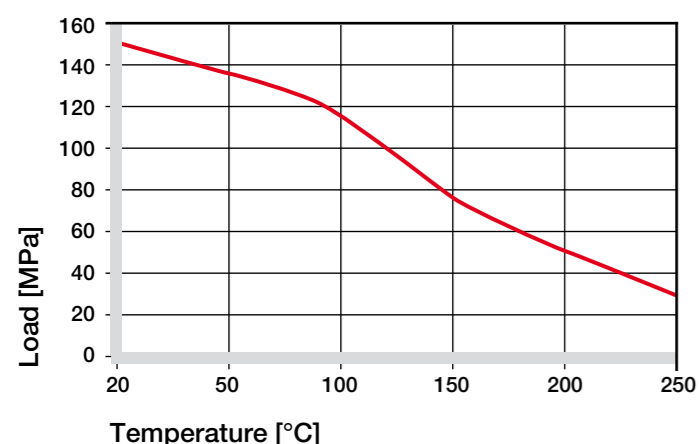


Diagram 02: Recommended maximum surface pressure of as a function of temperature (150 MPa at +20 °C)

Diagram 03 shows how iglidur® X plain bearings deform elastically under load.

► Surface pressure, page 63

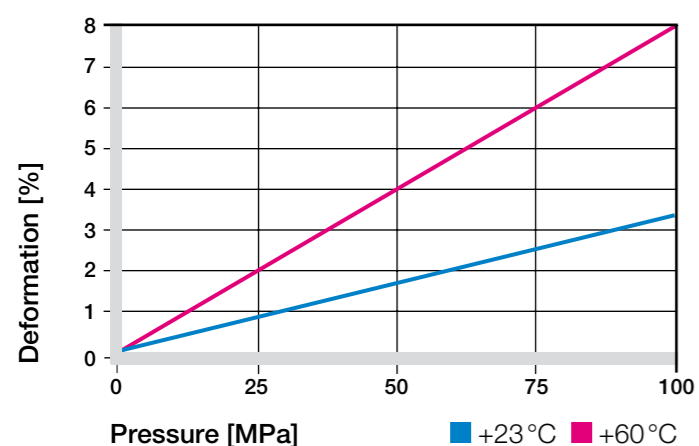


Diagram 03: Deformation under pressure and temperature

Permissible surface speeds

iglidur® X is designed for higher speeds than other iglidur® bearings. This is due to its high temperature resistance and excellent thermal conductivity. One benefit of this is seen in the maximum pv value of 1.32 MPa · m/s.

However, in this case, 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 65

m/s	Rotating	Oscillating	Linear
Continuous	1.5	1.1	5
Short term	3.5	2.5	10

Table 03: Maximum surface speeds

Temperatures

Having a permissible long term application, temperature of +250 °C, iglidur® X will even withstand +315 °C short term. As with all thermoplastics, the compression resistance of iglidur® X decreases with increasing temperature. At temperatures over +135 °C an additional securing is required.

At temperatures over +170 °C the axial security of the bearing in the housing needs to be tested. Please contact us if you have questions on bearing use.

► Application temperatures, page 66

► Additional securing, page 67

Friction and wear

Similar to wear resistance, the coefficient of friction also changes with the load (diagrams 04 and 05).

► Coefficients of friction and surfaces, page 68

► Wear resistance, page 69

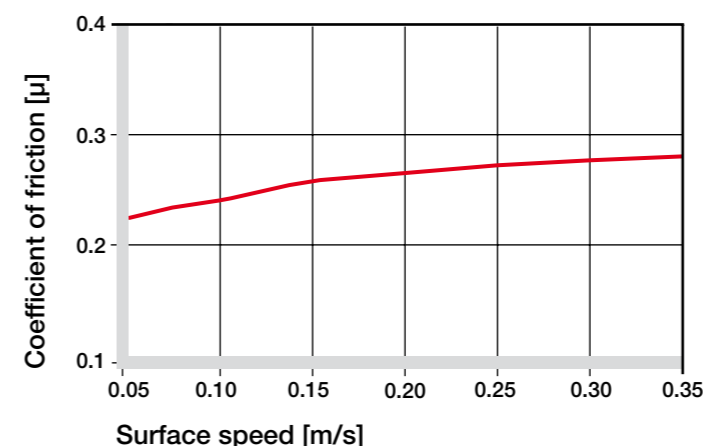


Diagram 04: Coefficient of friction as a function of the pressure, v = 0.01 m/s

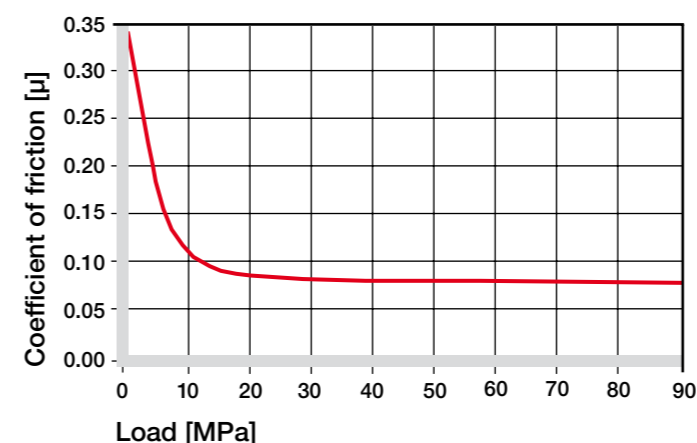


Diagram 05: Coefficient of friction as function of the shaft surface (Cf53 hardened and ground steel)

Shaft materials

The friction and wear are also dependent to a large degree on the shaft material. Shafts that are too smooth increase the coefficient of friction of the bearing. Ground surfaces with an average roughness Ra of 0.6 to 0.8 μm are ideal. Diagrams 06 and 07 show results of testing different shaft materials with plain bearings made from iglidur® X.

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

► Shaft materials, page 71

iglidur® X	Dry	Greases	Oil	Water
C.o.f. μ	0.09–0.27	0.09	0.04	0.04

Table 04: Coefficient of friction against steel (Ra = 1 μm, 50 HRC)

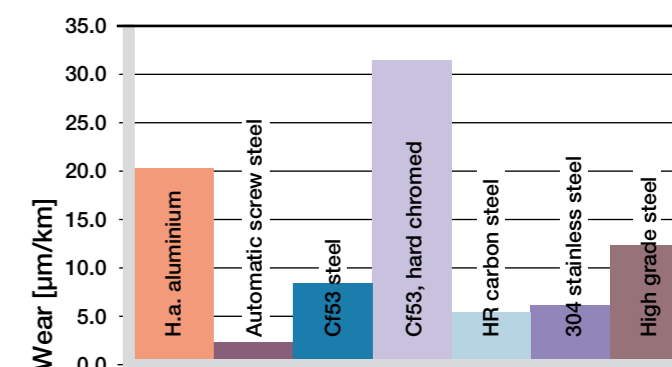


Diagram 06: Wear, rotating with different shaft materials, pressure, p = 1 MPa, v = 0.3 m/s

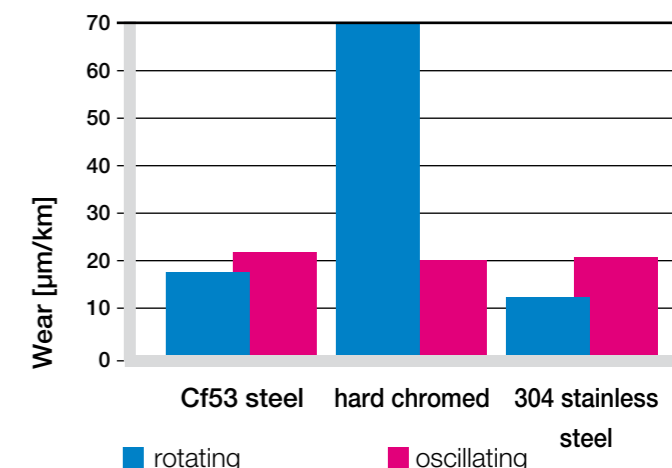


Diagram 07: Wear for rotating and oscillating applications with different shaft materials, p = 2 MPa

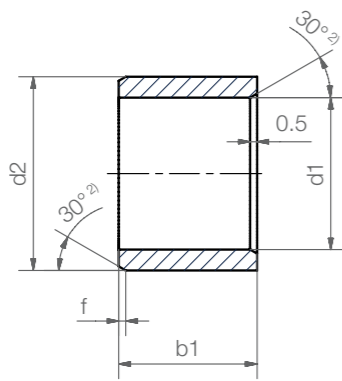
Installation tolerances

iglidur® X plain bearings are standard bearings for shafts with h-tolerance (recommended minimum h9). The bearings are designed for pressfit into a housing machined to a H7 tolerance. After being assembled into a nominal size housing, in standard cases the inner diameter automatically adjusts to the F10 tolerances. For specific dimensions the tolerance differs depending on the wall thickness (please see the product range table).

► Testing methods, page 75

Diameter d1 [mm]	Shaft h9 [mm]	iglidur® X F10 [mm]	Housing H7 [mm]
up to 3	0–0.025	+0.006 +0.046	0 +0.010
> 3 to 6	0–0.030	+0.010 +0.058	0 +0.012
> 6 to 10	0–0.036	+0.013 +0.071	0 +0.015
> 10 to 18	0–0.043	+0.016 +0.086	0 +0.018
> 18 to 30	0–0.052	+0.020 +0.104	0 +0.021
> 30 to 50	0–0.062	+0.025 +0.125	0 +0.025
> 50 to 80	0–0.074	+0.030 +0.150	0 +0.030

Table 05: Important tolerances for plain bearings according to ISO 3547-1 after pressfit



Order key

Type	Dimensions
X S M	-0203-03
iglidur® material	Form S
	Metric
	Inner-Ø d1 [mm]
	Outer-Ø d2 [mm]
	Length b1 [mm]



Dimensions according to ISO 3547-1 and special dimensions

²⁾ thickness < 1 mm, chamfer = 20°

Chamfer in relation to the d1

d1 [mm]:	Ø 1-6	Ø 6-12	Ø 12-30	Ø > 30
f [mm]:	0.3	0.5	0.8	1.2

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
2.0		3.5	3.0	XSM-0203-03
3.0	+0.006	4.5	3.0	XSM-0304-03
3.0	+0.046	4.5	6.0	XSM-0304-06
4.0		5.5	4.0	XSM-0405-04
4.0		5.5	6.0	XSM-0405-06
4.0		5.0	9.0	XSM-0405-09
4.0		5.5	10.0	XSM-0405-10
5.0	+0.010	7.0	3.5	XSM-0507-035
5.0	+0.058	7.0	5.0	XSM-0507-05
5.0		7.0	8.0	XSM-0507-08
6.0		8.0	6.0	XSM-0608-06
6.0		8.0	8.0	XSM-0608-08
6.0		8.0	10.0	XSM-0608-10
6.0		8.0	13.8	XSM-0608-13
7.0		9.0	10.0	XSM-0709-10
7.0		9.0	12.0	XSM-0709-12
8.0		10.0	6.0	XSM-0810-06
8.0		10.0	8.0	XSM-0810-08
8.0		10.0	10.0	XSM-0810-10
8.0		10.0	12.0	XSM-0810-12
8.0	+0.013	10.0	15.0	XSM-0810-15
10.0	+0.071	12.0	3.5	XSM-1012-035
10.0		12.0	6.0	XSM-1012-06
10.0		12.0	8.0	XSM-1012-08
10.0		12.0	10.0	XSM-1012-10
10.0		12.0	12.0	XSM-1012-12
10.0		12.0	15.0	XSM-1012-15
10.0		12.0	20.0	XSM-1012-20

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
12.0		14.0	3.5	XSM-1214-035
12.0		14.0	6.0	XSM-1214-06
12.0		14.0	8.0	XSM-1214-08
12.0		14.0	10.0	XSM-1214-10
12.0		14.0	12.0	XSM-1214-12
12.0		14.0	15.0	XSM-1214-15
12.0		14.0	20.0	XSM-1214-20
12.0		14.0	25.0	XSM-1214-25
14.0		16.0	12.0	XSM-1416-12
14.0		16.0	15.0	XSM-1416-15
14.0		16.0	20.0	XSM-1416-20
15.0	+0.016	17.0	7.0	XSM-1517-07
15.0	+0.086	17.0	10.0	XSM-1517-10
15.0		17.0	15.0	XSM-1517-15
15.0		17.0	20.0	XSM-1517-20
15.0		17.0	25.0	XSM-1517-25
16.0		18.0	10.0	XSM-1618-10
16.0		18.0	12.0	XSM-1618-12
16.0		18.0	15.0	XSM-1618-15
16.0		18.0	20.0	XSM-1618-20
16.0		18.0	35.0	XSM-1618-35
17.0		19.0	20.0	XSM-1719-20
18.0		20.0	15.0	XSM-1820-15
18.0		20.0	20.0	XSM-1820-20
20.0		22.0	14.0	XSM-2022-140
20.0	+0.020	22.0	14.5	XSM-2022-145
20.0	+0.104	22.0	17.0	XSM-2022-17
20.0		22.0	18.0	XSM-2022-18

³⁾ after pressfit. Testing methods ► Page 75

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	b1 h13	Part No.
20.0		22.0	20.0	XSM-2022-20
20.0		23.0	7.0	XSM-2023-07
20.0		23.0	10.0	XSM-2023-10
20.0		23.0	15.0	XSM-2023-15
20.0		23.0	20.0	XSM-2023-20
20.0		23.0	25.0	XSM-2023-25
20.0		23.0	30.0	XSM-2023-30
22.0		25.0	15.0	XSM-2225-15
22.0		25.0	20.0	XSM-2225-20
24.0		26.0	20.0	XSM-2426-20
24.0		27.0	6.0	XSM-2427-06
24.0		27.0	20.0	XSM-2427-20
25.0		28.0	7.7	XSM-2528-077
25.0	+0.020	28.0	9.0	XSM-2528-09
25.0	+0.104	28.0	12.0	XSM-2528-12
25.0		28.0	13.0	XSM-2528-13
25.0		28.0	15.0	XSM-2528-15
25.0		28.0	20.0	XSM-2528-20
25.0		28.0	30.0	XSM-2528-30
25.0		28.0	35.0	XSM-2528-35
26.0		28.0	10.0	XSM-2628-10
27.0		30.0	5.7	XSM-2730-05
28.0		32.0	20.0	XSM-2832-20
28.0		32.0	30.0	XSM-2832-30
28.0		32.0	69.0	XSM-2832-69
30.0		34.0	15.0	XSM-3034-15
30.0		34.0	20.0	XSM-3034-20
30.0		34.0	25.0	XSM-3034-25

³⁾ after pressfit. Testing methods ► Page 75



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²⁾ thickness < 1 mm, chamfer = 20°

Chamfer in relation to the d1

d1 [mm]:	Ø 1-6	Ø 6-12	Ø 12-30	Ø > 30
f [mm]:	0.3	0.5	0.8	1.2

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	d3 d13	b1 h13	b2 -0.14	Part No.
2.0	+0.006	4.0	6.0	3.0	1.0	XFM-020406-03
3.0	+0.046	4.5	7.5	5.0	0.75	XFM-0304-05
4.0		5.5	9.5	4.0	0.75	XFM-0405-04
4.0		5.5	9.5	6.0	0.75	XFM-0405-06
4.0	+0.010	5.5	8.0	6.0	0.75	XFM-040508-06
5.0	+0.058	7.0	11.0	5.0	1.0	XFM-0507-05
6.0		8.0	12.0	8.0	1.0	XFM-0608-08
6.0		8.0	12.0	10.0	1.0	XFM-0608-10
8.0		10.0	15.0	5.5	1.0	XFM-0810-05
8.0		10.0	15.0	7.5	1.0	XFM-0810-075
8.0		10.0	15.0	8.0	1.0	XFM-0810-08
8.0		10.0	15.0	9.0	1.0	XFM-0810-09
8.0		10.0	12.0	4.0	1.0	XFM-081012-04
8.0		10.0	14.0	31.5	1.0	XFM-081014-31
9.0	+0.013	11.0	15.0	18.0	0.5	XFM-0911-18
10.0	+0.071	12.0	18.0	5.0	1.0	XFM-1012-05
10.0		12.0	18.0	6.0	1.0	XFM-1012-06
10.0		12.0	15.0	8.0	1.0	XFM-1012-08
10.0		12.0	18.0	9.0	1.0	XFM-1012-09
10.0		12.0	18.0	15.0	1.0	XFM-1012-15
10.0		12.0	18.0	18.0	1.0	XFM-1012-18
10.0		12.0	15.0	22.0	1.0	XFM-1012-22
10.0		12.0	18.0	25.0	1.0	XFM-1012-25
12.0		14.0	20.0	5.5	1.0	XFM-1214-055
12.0	+0.016	14.0	20.0	9.0	1.0	XFM-1214-09
12.0	+0.086	14.0	20.0	12.0	1.0	XFM-1214-12
12.0		14.0	20.0	15.0	1.0	XFM-1214-15
12.0		14.0	18.0	3.9	1.0	XFM-121418-039

³⁾ after pressfit. Testing methods ► Page 75



Order key

Type Dimensions

X F M-0304-05

iglidur® material	Form F	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

d1	d1- Tolerance ³⁾	d2	d3 d13	b1 h13	b2 -0.14	Part No.
12.0		14.0	18.0	5.9	1.0	XFM-121418-059
14.0		16.0	22.0	10.0	1.0	XFM-1416-10
14.0		16.0	22.0	12.0	1.0	XFM-1416-12
14.0		16.0	22.0	17.0	1.0	XFM-1416-17
15.0		17.0	23.0	6.0	1.0	XFM-1517-06
15.0	+0.016	17.0	23.0	12.0	1.0	XFM-1517-12
15.0	+0.086	17.0	23.0	17.0	1.0	XFM-1517-17
16.0		18.0	24.0	12.0	1.0	XFM-1618-12
16.0		18.0	24.0	17.0	1.0	XFM-1618-17
18.0		20.0	26.0	12.0	1.0	XFM-1820-12
18.0		20.0	26.0	17.0	1.0	XFM-1820-17
20.0		23.0	30.0	6.5	1.5	XFM-2023-065
20.0		23.0	30.0	7.5	1.5	XFM-2023-075
20.0		23.0	30.0	11.0	1.5	XFM-2023-11
20.0		23.0	30.0	16.5	1.5	XFM-2023-16
20.0		23.0	30.0	21.0	1.5	XFM-2023-21
25.0	+0.020	28.0	35.0	13.5	1.5	XFM-2528-13
25.0	+0.104	28.0	35.0	21.0	1.5	XFM-2528-21
25.0		28.0	33.0	8.0	1.0	XFM-252833-08
27.0		30.0	38.0	20.0	1.5	XFM-2730-20
30.0		34.0	42.0	16.0	2.0	XFM-3034-16
30.0		34.0	42.0	26.0	2.0	XFM-3034-26
30.0		34.0	42.0	40.0	2.0	XFM-3034-40
32.0		36.0	45.0	15.0	2.0	XFM-3236-15
32.0	+0.025	36.0	45.0	26.0	2.0	XFM-3236-26
35.0	+0.125	39.0	47.0	26.0	2.0	XFM-3539-26
40.0		44.0	52.0	22.0	2.0	XFM-4044-22
40.0		44.0	52.0	30.0	2.0	XFM-4044-30

Dimensions [mm]

d1	d1- Tolerance ³⁾	d2	d3 d13	b1 h13	b2 -0.14	Part No.
40.0		44.0	52.0	40.0	2.0	XFM-4044-40
45.0	+0.025	50.0	58.0	50.0	2.0	XFM-4550-50
50.0	+0.125	55.0	63.0	40.0	2.0	XFM-5055-40

³⁾ after pressfit. Testing methods ► Page 75

d1	d1- Tolerance ³⁾	d2	d3 d13	b1 h13	b2 -0.14	Part No.
60.0	+0.030	65.0	73.0	40.0	2.0	XFM-6065-40
70.0	+0.150	75.0	83.0	40.0	2.0	XFM-7075-40
75.0		80.0	88.0	50.0	2.0	XFM-7580-50



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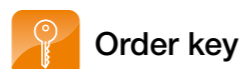
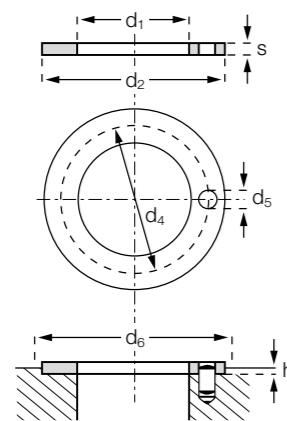
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Order key

Type Dimensions

X T M-0620-015

iglidur® material	Form T	Metric	Inner-Ø d1 [mm]	Outer-Ø d2 [mm]	Thickness s [mm]
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Dimensions according to ISO 3547-1 and special dimensions

Dimensions [mm]

d1	d2	s	d4	d5	h	d6	Part No.
+0.25	-0.25	-0.05	-0.12	+0.375	+0.2	+0.12	
			+0.12	+0.125	-0.2		
6.0	20.0	1.5	13.0	1.5	1.0	20.0	XTM-0620-015
8.0	18.0	1.5	13.0	1.5	1.0	18.0	XTM-0818-015
8.0	29.0	1.5	⁴⁾	⁴⁾	1.0	29.0	XTM-0829-015
8.0	30.0	1.5	⁴⁾	⁴⁾	1.0	30.0	XTM-0830-015
10.0	18.0	1.0	⁴⁾	⁴⁾	0.7	18.0	XTM-1018-010
12.0	24.0	1.5	18.0	1.5	1.0	24.0	XTM-1224-015
14.0	26.0	1.5	20.0	2.0	1.0	26.0	XTM-1426-015
15.0	22.0	0.8	⁴⁾	⁴⁾	0.5	22.0	XTM-1522-008
15.0	24.0	1.5	19.5	1.5	1.0	24.0	XTM-1524-015
16.0	30.0	1.5	22.0	2.0	1.0	30.0	XTM-1630-015
18.0	32.0	1.5	25.0	2.0	1.0	32.0	XTM-1832-015
20.0	36.0	1.5	28.0	3.0	1.0	36.0	XTM-2036-015
22.0	38.0	1.5	30.0	3.0	1.0	38.0	XTM-2238-015
24.0	42.0	1.5	33.0	3.0	1.0	42.0	XTM-2442-015
26.0	44.0	1.5	35.0	3.0	1.0	44.0	XTM-2644-015
28.0	48.0	1.5	38.0	4.0	1.0	48.0	XTM-2848-015
32.0	54.0	1.5	43.0	4.0	1.0	54.0	XTM-3254-015
38.0	62.0	1.5	50.0	4.0	1.0	62.0	XTM-3862-015
42.0	66.0	1.5	54.0	4.0	1.0	66.0	XTM-4266-015
48.0	74.0	2.0	61.0	4.0	1.5	74.0	XTM-4874-020
52.0	78.0	2.0	65.0	4.0	1.5	78.0	XTM-5278-020
62.0	90.0	2.0	76.0	4.0	1.5	90.0	XTM-6290-020

⁴⁾ Design without fixing bore



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