

For high dynamic loads, wear resistant – iglidur® Z



Standard range from stock

Excellent wear resistance especially with high loads

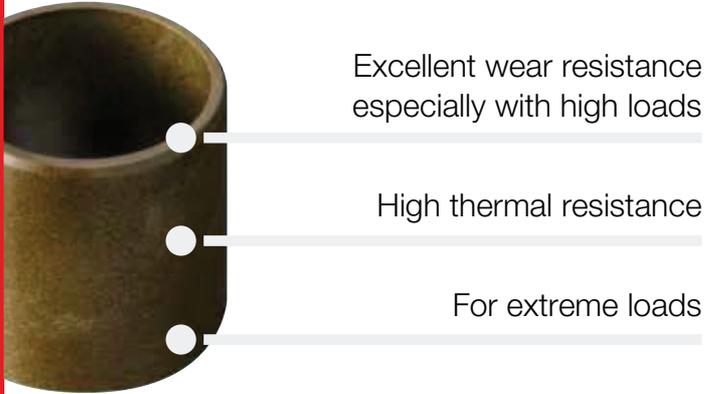
High thermal resistance

For extreme loads

For high surface speeds

Resistant to edge loads

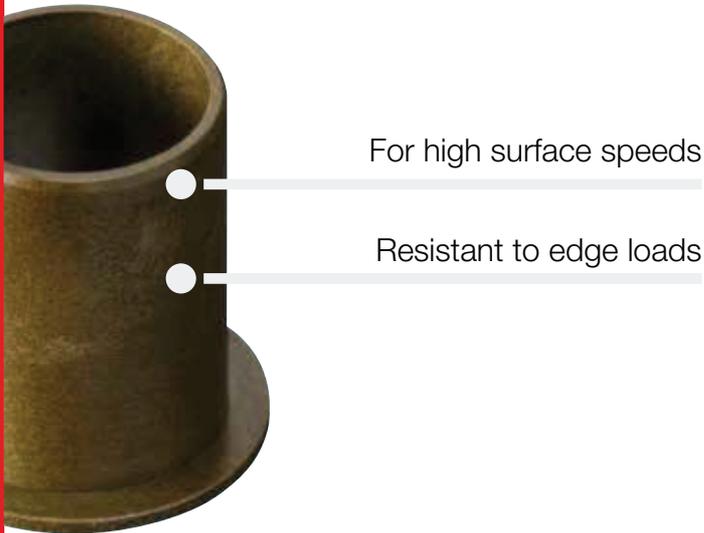
For high dynamic loads, wear resistant. Extremely high compressive strength coupled with high elasticity enables iglidur® Z bearings to attain their prominent features in association with soft shafts, edge loads and impacts. The bearings are at the same time suitable for temperatures up to +250 °C.



Excellent wear resistance especially with high loads

High thermal resistance

For extreme loads

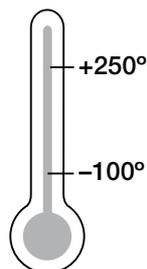


For high surface speeds

Resistant to edge loads



Temperature



When to use it?

- For continuous temperatures up to +250 °C long term or +310 °C short term
- When high wear resistance is required especially under high radial loads
- For high surface speeds
- For edge loading in connection with high surface pressures



When not to use it?

- For low loads and temperatures
 - ▶ iglidur® P, page 195
- When a cost-effective general purpose bearing is sought
 - ▶ iglidur® G, page 81
- When electrically conductive bearings are needed
 - ▶ iglidur® F, page 509
 - ▶ iglidur® H, page 353
 - ▶ iglidur® H370, page 375

Product range

3 types
 Ø 4–100 mm
 more dimensions
 on request



iglidur® Z | Application Examples

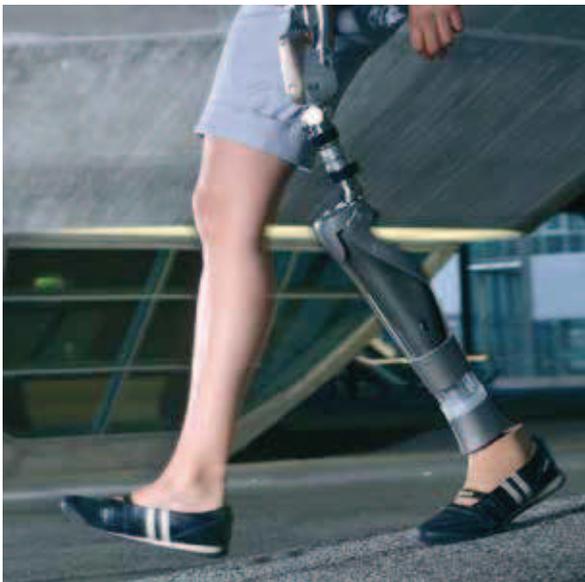


Typical sectors of industry and application areas

- Construction machinery
- Machine building ● Textile technology
- Aerospace engineering
- Glass industry etc.

Improve technology and reduce costs – 310 exciting examples for iglidur® plain bearings online

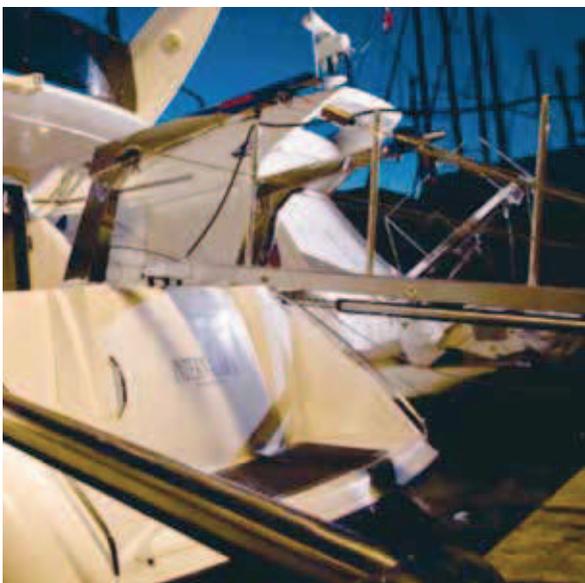
► www.igus.eu/iglidur-applications



► www.igus.eu/hip-jointsystem



► www.igus.eu/rollercoaster



► www.igus.eu/mooring-system



► www.igus.eu/railroad-platform

Material properties table

| General Properties | Unit | iglidur® Z | Testing method |
|--|------------------------------------|--------------------|----------------|
| Density | g/cm ³ | 1.40 | |
| Colour | | brown | |
| Max. moisture absorption at +23 °C/50 % r.h. | % weight | 0.3 | DIN 53495 |
| Max. water absorption | % weight | 1.1 | |
| Coefficient of sliding friction, dynamic against steel | μ | 0.06–0.14 | |
| pv value, max. (dry) | MPa · m/s | 0.84 | |
| Mechanical properties | | | |
| Modulus of elasticity | MPa | 2,400 | DIN 53457 |
| Tensile strength at +20 °C | MPa | 95 | DIN 53452 |
| Compressive strength | MPa | 65 | |
| Max. recommended surface pressure (+20 °C) | MPa | 150 | |
| Shore D hardness | | 81 | DIN 53505 |
| Physical and thermal properties | | | |
| Max. long term application temperature | °C | +250 | |
| Max. short term application temperature | °C | +310 | |
| Min. application temperature | °C | -100 | |
| Thermal conductivity | W/m · K | 0.62 | ASTM C 177 |
| Coefficient of thermal expansion (at +23 °C) | K ⁻¹ · 10 ⁻⁵ | 4 | DIN 53752 |
| Electrical properties | | | |
| Specific volume resistance | Ωcm | > 10 ¹¹ | DIN IEC 93 |
| Surface resistance | Ω | > 10 ¹¹ | DIN 53482 |

Table 01: Material properties table

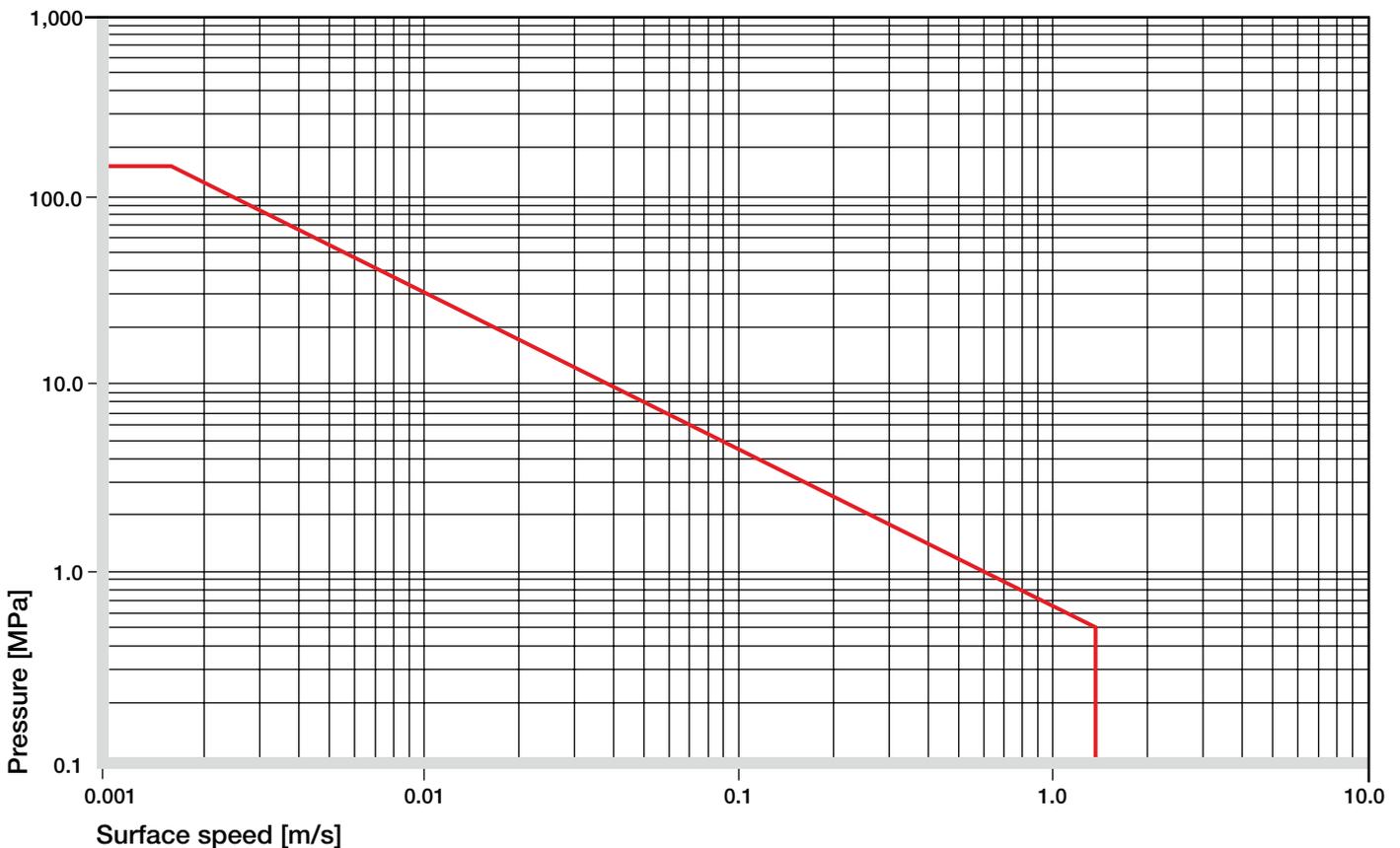


Diagram 01: Permissible pv values for iglidur® Z with a wall thickness of 1 mm dry running against a steel shaft at +20 °C, mounted in a steel housing

iglidur® Z | Technical Data

In addition to iglidur® X, iglidur® Z is among the best selling iglidur® high-temperature materials. Specifically worth noting is the outstanding wear behavior under extreme conditions (high loads and temperatures).

Mechanical Properties

With increasing temperatures, the compressive strength of iglidur® Z plain bearings decreases. The Diagram 02 shows this inverse relationship. However, at the longterm maximum temperature of +250 °C the permissible surface pressure is almost 45 MPa. The recommended maximum surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this.

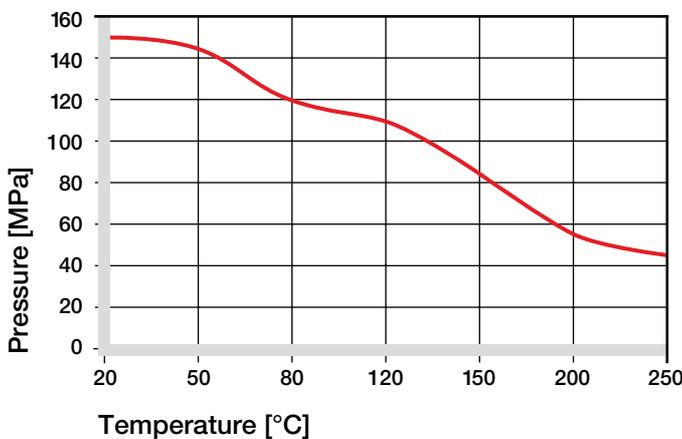


Diagram 02: Recommended maximum surface pressure as a function of temperature (150 MPa at +20 °C)

iglidur® Z is suited for both average and high speeds due to its high thermal resistance. Diagram 03 shows the elastic deformation of iglidur® Z at radial loads. At the recommended maximum surface pressure of 150 MPa the deformation is ca. 5.5 %.

► Surface Pressure, page 63

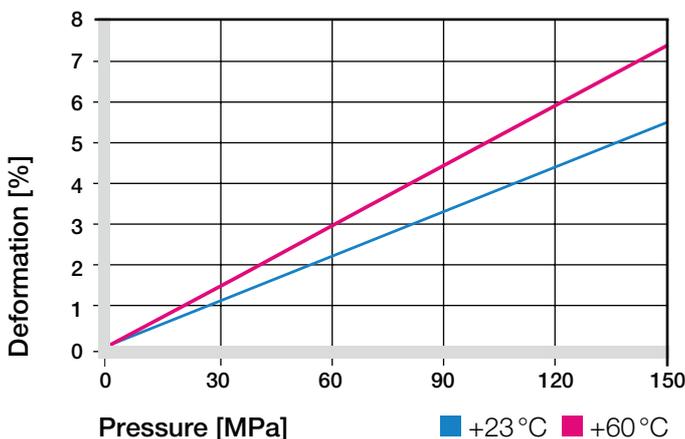


Diagram 03: Deformation under pressure and temperature

Permissible Surface Speeds

iglidur® Z is a high temperature bearing material, which is suited for applications with very high specific loads. The maximum values shown in table 02 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 |
|------------|----------|-------------|--------|
| Continuous | 1.5 | 1.1 | 5 |
| Short term | 3.5 | 2.5 | 6 |

Table 02: Maximum running speed

Temperatures

The maximum permissible short term temperature is +310 °C. This is among the highest thermal resistance of any iglidur® material. Abb. 02 shows this relationship.

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

At high temperatures iglidur® Z is also the most wear resistant material when running dry.

► Application Temperatures, page 66

| iglidur® Z | Application temperature |
|--------------------------------|-------------------------|
| Minimum | -100 °C |
| Max. long term | +250 °C |
| Max. short term | +310 °C |
| Add. securing is required from | +145 °C |

Table 03: Temperature limits

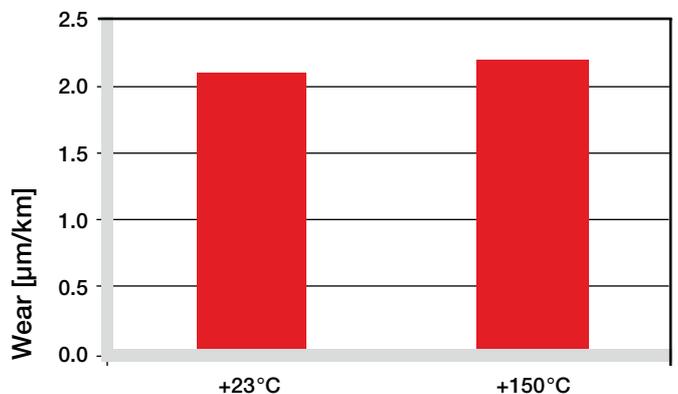


Diagram 04: Wear as a function of temperature, rotation with p = 0.75 MPa, v = 0.5 m/s (CF53 hardened and ground steel)

Friction and Wear

The coefficient of friction declines just as the wear resistance with increasing load.

Friction and wear also depend to a high degree on the reverse partner. Very smooth shafts increase the coefficient of both friction and wear. iglidur[®] Z proves to be relatively insensitive with regard to the shaft surface. The best suited is a smoothed surface with an average surface finish coefficient of friction 0.4 to 0.7 μm , if the friction should be minimized.

► Coefficients of Friction and Surfaces, **page 68**

► Wear Resistance, **page 69**

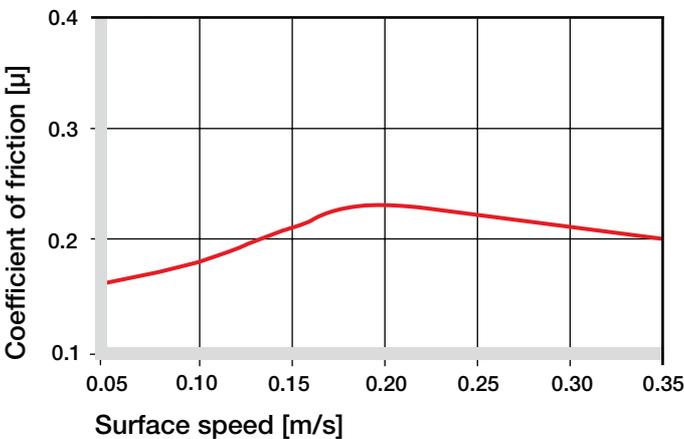


Diagram 05: Coefficient of friction as a function of the running speed, $p = 0.75 \text{ MPa}$

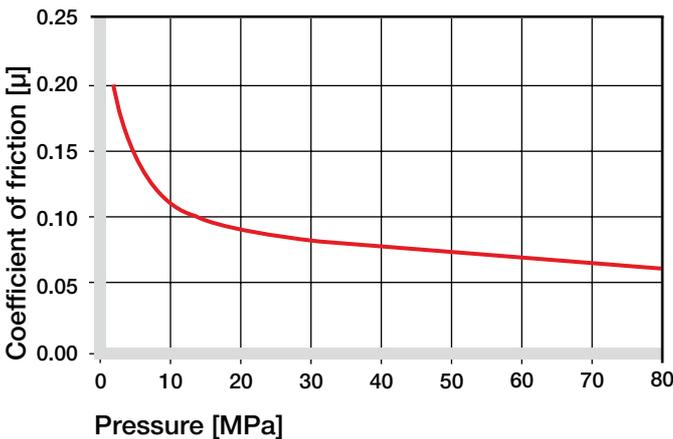


Diagram 06: Coefficient of friction as a function of the pressure, $v = 0.01 \text{ m/s}$

Shaft Materials

Diagrams 08-11 show wear rates in the lower load range, which are very similar to those of other wear-resistant iglidur[®] materials. However, in the upper load range iglidur[®] Z outperforms all other materials in wear resistance. Provided a Cf53 hardened and ground steel shaft is used, the wear is at 45 MPa still only 15 $\mu\text{m}/\text{km}$.

At low loads iglidur[®] Z plain bearings wear less in oscillating operation than in rotation. 304 Stainless Steel and hard chromed shaft are of interest here.

► Shaft Materials, **page 71**

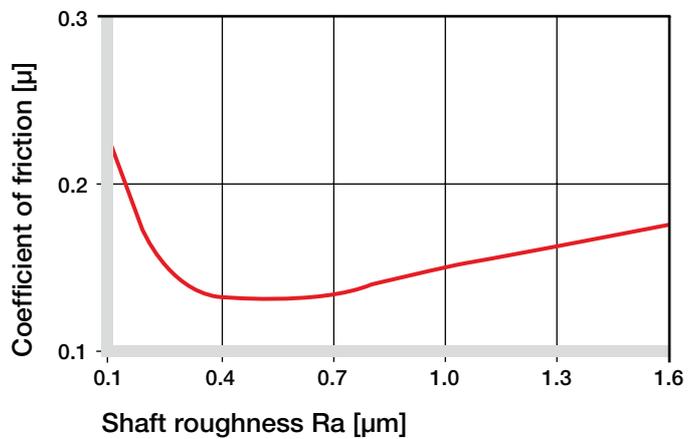


Diagram 07: Coefficient of friction as a function of the shaft surface (Cf53 hardened and ground steel)

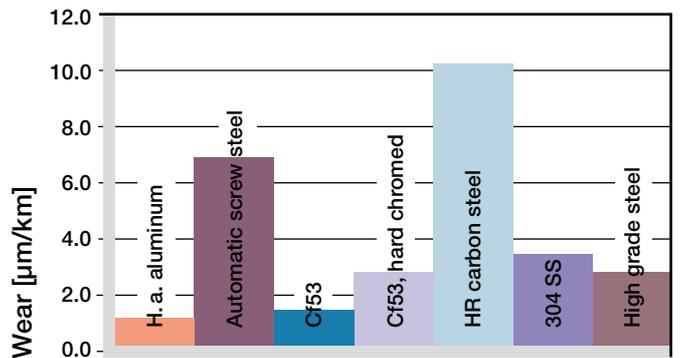


Diagram 08: Wear, rotating with different shaft materials, pressure $p = 1 \text{ MPa}$, $v = 0.3 \text{ m/s}$

iglidur® Z | Technical Data

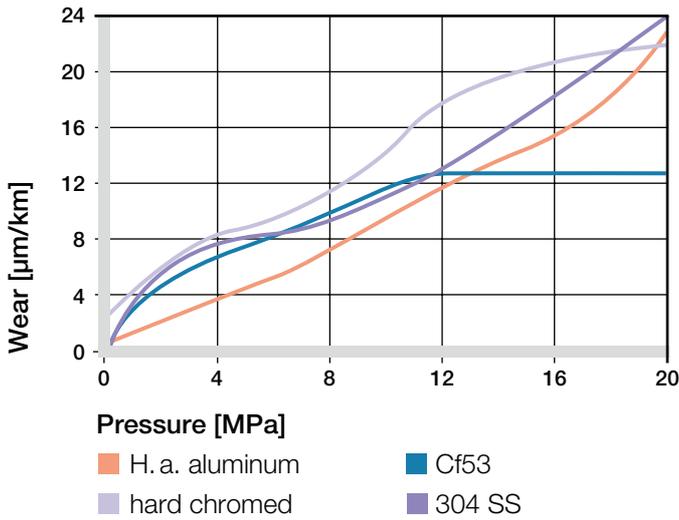


Diagram 09: Wear with different shaft materials in rotational operation, as a function of the pressure

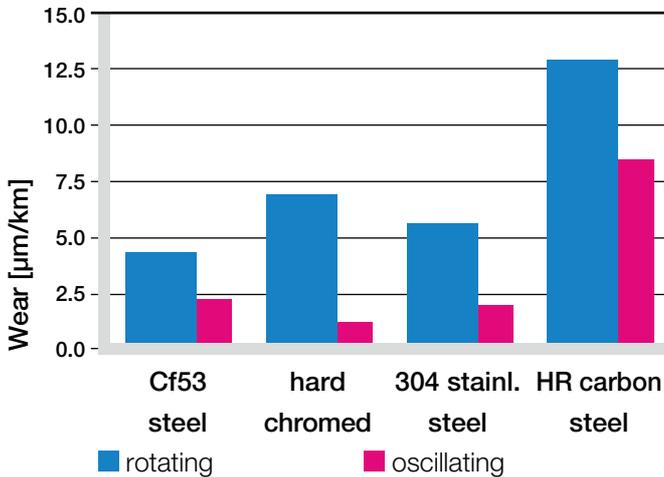


Diagram 10: Wear for rotating and oscillating applications with different shaft materials, p = 2 MPa

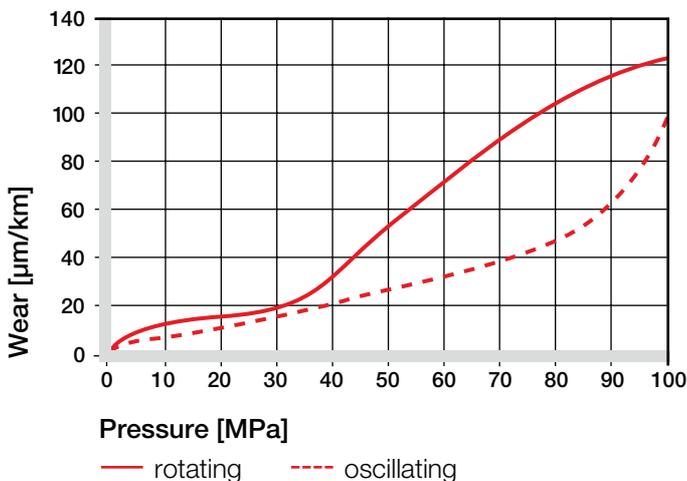


Diagram 11: Wear for oscillating and rotating applications with shaft material Cf53 hardened and ground steel, as a function of the pressure

| iglidur® Z | Dry | Greases | Oil | Water |
|--------------|-----------|---------|------|-------|
| C.o.f. μ | 0.06–0.14 | 0.09 | 0.04 | 0.04 |

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

Additional Properties

Chemical Resistance

iglidur® Z plain bearings have a very good resistance to chemicals. They have an excellent resistance against organic solvents, fuels, oils and greases. The material is only partially resistant against weak acids.

► Chemical Table, page 1258

| Medium | Resistance |
|---------------------------------|------------|
| Alcohol | 0 |
| 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 05: Chemical resistance

Radiation Resistance

Plain bearings made from iglidur® Z are resistant to radiation up to an intensity of $1 \cdot 10^5$ Gy.

UV Resistance

UV radiation causes approximately 50 % decline of the tribological properties (wear resistance) of plain bearings made from iglidur® Z.

Vacuum

For use in a vacuum environment, moisture content is released as vapour. Therefore, only dehumidified bearings made of iglidur® Z are suitable for a vacuum environment.

Electrical Properties

iglidur® Z plain bearings are electrically insulating.

| | |
|--------------------|-------------------------|
| Volume resistance | > 10^{11} Ω cm |
| Surface resistance | > 10^{11} Ω |

Moisture Absorption

The moisture absorption of iglidur® Z plain bearings is approximately 0.3% in standard atmosphere. The saturation limit in water is 1.1%.

Maximum moisture absorption

At +23 °C/50 % r.h. 0.3 % weight

Max. water absorption 1.1 % weight

Table 06: Moisture absorption

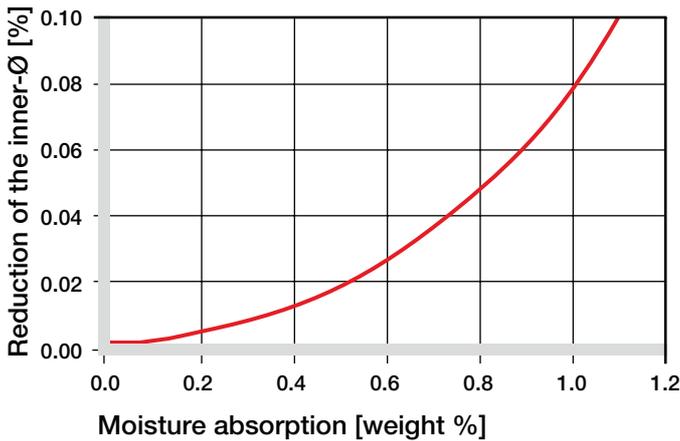


Diagram 12: Effect of moisture absorption on plain bearings

Installation Tolerances

iglidur® Z 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 particular dimensions the tolerance differs depending on the wall thickness (please see product range table).

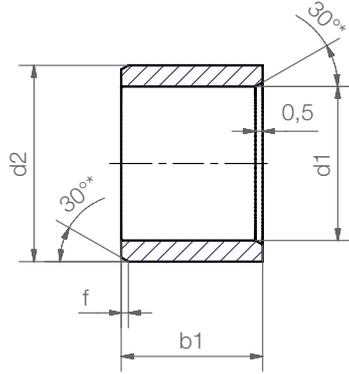
► Testing Methods, page 75

| Diameter d1 [mm] | Shaft h9 [mm] | iglidur® Z 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 07: Important tolerances for plain bearings according to ISO 3547-1 after pressfit

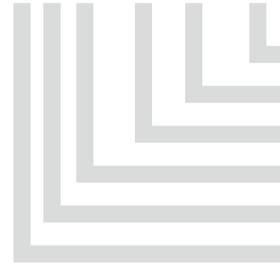
iglidur® Z | Product Range

Sleeve bearing



Order key

ZSM-0405-04



Dimensions according to ISO 3547-1 and special dimensions

* 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 |

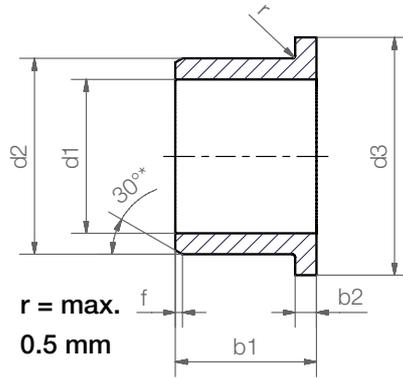
Dimensions [mm]

| Part number | d1 | d1-Tolerance* | d2 | b1 h13 |
|-------------|------|---------------|------|-----------|
| ZSM-0405-04 | 4.0 | +0.010 +0.058 | 5.5 | 4.0 |
| ZSM-0507-05 | 5.0 | +0.010 +0.058 | 7.0 | 5.0 |
| ZSM-0507-09 | 5.0 | +0.010 +0.058 | 7.0 | 9.0 |
| ZSM-0608-06 | 6.0 | +0.010 +0.058 | 8.0 | 6.0 |
| ZSM-0608-08 | 6.0 | +0.010 +0.058 | 8.0 | 8.0 |
| ZSM-0608-12 | 6.0 | +0.010 +0.058 | 8.0 | 12.0 |
| ZSM-0610-06 | 6.0 | +0.010 +0.058 | 10.0 | 6.0 |
| ZSM-0810-06 | 8.0 | +0.013 +0.071 | 10.0 | 6.0 |
| ZSM-0810-08 | 8.0 | +0.013 +0.071 | 10.0 | 8.0 |
| ZSM-0810-10 | 8.0 | +0.013 +0.071 | 10.0 | 10.0 |
| ZSM-1012-08 | 10.0 | +0.013 +0.071 | 12.0 | 8.0 |
| ZSM-1012-10 | 10.0 | +0.013 +0.071 | 12.0 | 10.0 |
| ZSM-1012-12 | 10.0 | +0.013 +0.071 | 12.0 | 12.0 |
| ZSM-1214-08 | 12.0 | +0.016 +0.086 | 14.0 | 8.0 |
| ZSM-1214-15 | 12.0 | +0.016 +0.086 | 14.0 | 15.0 |
| ZSM-1416-20 | 14.0 | +0.016 +0.086 | 16.0 | 20.0 |
| ZSM-1517-15 | 15.0 | +0.016 +0.086 | 17.0 | 15.0 |
| ZSM-1517-20 | 15.0 | +0.016 +0.086 | 17.0 | 20.0 |
| ZSM-1517-22 | 15.0 | +0.016 +0.086 | 17.0 | 22.0 |
| ZSM-1618-12 | 16.0 | +0.016 +0.086 | 18.0 | 12.0 |
| ZSM-1618-15 | 16.0 | +0.016 +0.086 | 18.0 | 15.0 |
| ZSM-1820-20 | 18.0 | +0.016 +0.086 | 20.0 | 20.0 |
| ZSM-1820-24 | 18.0 | +0.016 +0.086 | 20.0 | 24.0 |
| ZSM-2023-10 | 20.0 | +0.020 +0.104 | 23.0 | 10.0 |
| ZSM-2023-15 | 20.0 | +0.020 +0.104 | 23.0 | 15.0 |
| ZSM-2023-20 | 20.0 | +0.020 +0.104 | 23.0 | 20.0 |
| ZSM-2023-30 | 20.0 | +0.020 +0.104 | 23.0 | 30.0 |
| ZSM-2023-35 | 20.0 | +0.020 +0.104 | 23.0 | 35.0 |

| Part number | d1 | d1-Tolerance* | d2 | b1 h13 |
|----------------------------|-------|---------------|-------|-----------|
| ZSM-2224-30 | 22.0 | +0.020 +0.104 | 24.0 | 30.0 |
| ZSM-2225-20 | 22.0 | +0.020 +0.104 | 25.0 | 20.0 |
| ZSM-2528-15 | 25.0 | +0.020 +0.104 | 28.0 | 15.0 |
| ZSM-2528-20 | 25.0 | +0.020 +0.104 | 28.0 | 20.0 |
| ZSM-2528-30 | 25.0 | +0.020 +0.104 | 28.0 | 30.0 |
| ZSM-2528-48 | 25.0 | +0.020 +0.104 | 28.0 | 48.0 |
| ZSM-2630-34 | 26.0 | +0.020 +0.104 | 30.0 | 34.0 |
| ZSM-2834-29 | 28.0 | +0.020 +0.104 | 34.0 | 29.0 |
| ZSM-3034-20 | 30.0 | +0.020 +0.104 | 34.0 | 20.0 |
| ZSM-3034-30 | 30.0 | +0.020 +0.104 | 34.0 | 30.0 |
| ZSM-3034-40 | 30.0 | +0.020 +0.104 | 34.0 | 40.0 |
| ZSM-3539-20 | 35.0 | +0.025 +0.125 | 39.0 | 20.0 |
| ZSM-4044-15 | 40.0 | +0.025 +0.125 | 44.0 | 15.0 |
| ZSM-4044-40 | 40.0 | +0.025 +0.125 | 44.0 | 40.0 |
| ZSM-4044-47 | 40.0 | +0.025 +0.125 | 44.0 | 47.0 |
| ZSM-4550-40 | 45.0 | +0.025 +0.125 | 50.0 | 40.0 |
| ZSM-5055-50 | 50.0 | +0.025 +0.125 | 55.0 | 50.0 |
| ZSM-5055-60 | 50.0 | +0.025 +0.125 | 55.0 | 60.0 |
| ZSM-5560-60 | 55.0 | +0.030 +0.150 | 60.0 | 60.0 |
| ZSM-6065-60 | 60.0 | +0.030 +0.150 | 65.0 | 60.0 |
| ZSM-7075-70 | 70.0 | +0.030 +0.150 | 75.0 | 70.0 |
| ZSM-8085-60 | 80.0 | +0.030 +0.150 | 85.0 | 60.0 |
| ZSM-8085-80 New! | 80.0 | +0.030 +0.150 | 85.0 | 80.0 |
| ZSM-8590-60 New! | 85.0 | +0.036 +0.176 | 90.0 | 60.0 |
| ZSM-8590-100 New! | 85.0 | +0.036 +0.176 | 90.0 | 100.0 |
| ZSM-95100-60 New! | 95.0 | +0.036 +0.176 | 100.0 | 60.0 |
| ZSM-100105-100 | 100.0 | +0.072 +0.212 | 105.0 | 100.0 |
| ZSM-120125-100 New! | 120.0 | +0.043 +0.203 | 125.0 | 100.0 |

* after pressfit. Testing methods ► page 75

Flange bearing



Order key

ZFM-0405-04



- Length b1
- Outer diameter d2
- Inner diameter d1
- Metric
- Type (Form F)
- Material iglidur® Z

Dimensions according to ISO 3547-1 and special dimensions

* 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]

| Part number | d1 | d1-Tolerance* | d2 | d3 d13 | b1 h13 | b2 -0.14 |
|---------------|------|---------------|------|-----------|-----------|-------------|
| ZFM-0405-04 | 4.0 | +0.010 +0.058 | 5.5 | 9.5 | 4.0 | 0.75 |
| ZFM-0507-05 | 5.0 | +0.010 +0.058 | 7.0 | 11.0 | 5.0 | 1.0 |
| ZFM-0608-08 | 6.0 | +0.010 +0.058 | 8.0 | 12.0 | 8.0 | 1.0 |
| ZFM-0810-055 | 8.0 | +0.013 +0.071 | 10.0 | 15.0 | 5.5 | 1.0 |
| ZFM-0810-09 | 8.0 | +0.013 +0.071 | 10.0 | 15.0 | 9.0 | 1.0 |
| ZFM-1012-05 | 10.0 | +0.013 +0.071 | 12.0 | 18.0 | 5.0 | 1.0 |
| ZFM-1012-09 | 10.0 | +0.013 +0.071 | 12.0 | 18.0 | 9.0 | 1.0 |
| ZFM-1012-15 | 10.0 | +0.013 +0.071 | 12.0 | 18.0 | 15.0 | 1.0 |
| ZFM-101315-05 | 10.0 | +0.013 +0.071 | 13.0 | 15.0 | 5.5 | 1.5 |
| ZFM-1214-09 | 12.0 | +0.016 +0.086 | 14.0 | 20.0 | 9.0 | 1.0 |
| ZFM-1214-12 | 12.0 | +0.016 +0.086 | 14.0 | 20.0 | 12.0 | 1.0 |
| ZFM-1214-20 | 12.0 | +0.016 +0.086 | 14.0 | 20.0 | 20.0 | 1.0 |
| ZFM-1416-17 | 14.0 | +0.016 +0.086 | 16.0 | 22.0 | 17.0 | 1.0 |
| ZFM-1517-11 | 15.0 | +0.016 +0.086 | 17.0 | 23.0 | 11.0 | 1.0 |
| ZFM-1517-15 | 15.0 | +0.016 +0.086 | 17.0 | 23.0 | 15.0 | 1.0 |
| ZFM-151723-23 | 15.0 | +0.016 +0.086 | 17.0 | 23.0 | 23.0 | 1.0 |
| ZFM-1618-12 | 16.0 | +0.016 +0.086 | 18.0 | 24.0 | 12.0 | 1.0 |
| ZFM-1820-04 | 18.0 | +0.016 +0.086 | 20.0 | 26.0 | 4.0 | 1.0 |
| ZFM-1820-17 | 18.0 | +0.016 +0.086 | 20.0 | 26.0 | 17.0 | 1.0 |
| ZFM-2022-21 | 20.0 | +0.020 +0.104 | 22.0 | 30.0 | 21.0 | 1.0 |
| ZFM-2023-11 | 20.0 | +0.020 +0.104 | 23.0 | 30.0 | 11.5 | 1.5 |
| ZFM-2023-155 | 20.0 | +0.020 +0.104 | 23.0 | 30.0 | 15.5 | 1.5 |
| ZFM-2023-16 | 20.0 | +0.020 +0.104 | 23.0 | 30.0 | 16.5 | 1.5 |
| ZFM-2023-21 | 20.0 | +0.020 +0.104 | 23.0 | 30.0 | 21.5 | 1.5 |
| ZFM-2023-31 | 20.0 | +0.020 +0.104 | 23.0 | 30.0 | 31.5 | 1.5 |

* after pressfit. Testing methods ► page 75

delivery from stock
time

prices price list online
www.igus.eu/eu/z



Flange bearing

Dimensions [mm]

| Part number | d1 | d1-Tolerance* | d2 | d3 d13 | b1 h13 | b2 -0.14 |
|---------------------------|------|---------------|------|-----------|-----------|-------------|
| ZFM-2528-16 | 25.0 | +0.020 +0.104 | 28.0 | 35.0 | 16.5 | 1.5 |
| ZFM-2528-21 | 25.0 | +0.020 +0.104 | 28.0 | 35.0 | 21.5 | 1.5 |
| ZFM-2528-31 | 25.0 | +0.020 +0.104 | 28.0 | 35.0 | 31.5 | 1.5 |
| ZFM-3034-13 | 30.0 | +0.020 +0.104 | 34.0 | 42.0 | 13.0 | 2.0 |
| ZFM-3034-20 | 30.0 | +0.020 +0.104 | 34.0 | 42.0 | 20.0 | 2.0 |
| ZFM-3034-26 | 30.0 | +0.020 +0.104 | 34.0 | 42.0 | 26.0 | 2.0 |
| ZFM-3034-37 | 30.0 | +0.020 +0.104 | 34.0 | 42.0 | 37.0 | 2.0 |
| ZFM-3539-26 | 35.0 | +0.025 +0.125 | 39.0 | 47.0 | 26.0 | 2.0 |
| ZFM-4044-20 | 40.0 | +0.025 +0.125 | 44.0 | 52.0 | 20.0 | 2.0 |
| ZFM-4044-40 | 40.0 | +0.025 +0.125 | 44.0 | 52.0 | 40.0 | 2.0 |
| ZFM-4550-50 | 45.0 | +0.025 +0.125 | 50.0 | 58.0 | 50.0 | 2.0 |
| ZFM-5055-20 | 50.0 | +0.025 +0.125 | 55.0 | 63.0 | 20.0 | 2.0 |
| ZFM-5055-50 | 50.0 | +0.025 +0.125 | 55.0 | 63.0 | 50.0 | 2.0 |
| ZFM-6065-50 | 60.0 | +0.030 +0.150 | 65.0 | 73.0 | 50.0 | 2.5 |
| ZFM-7580-50 | 75.0 | +0.030 +0.150 | 80.0 | 88.0 | 50.0 | 2.5 |
| ZFM-758094-65 New! | 75.0 | +0.030 +0.150 | 80.0 | 94.0 | 65.0 | 3.0 |

* after pressfit. Testing methods ► page 75



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. iglidur® listens to your needs and provides you a solution in a very short time.

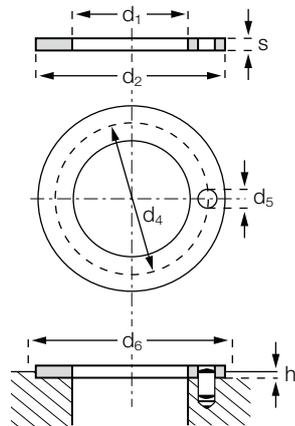


Even more dimensions from stock

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

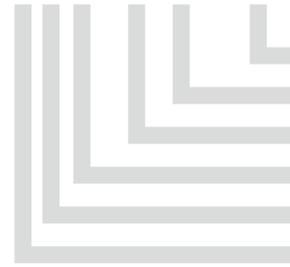
► www.igus.eu/iglidur-specialbearings

Thrust washer



Order key

ZTM-1527-015



- Thickness s
- Outer diameter d2
- Inner diameter d1
- Metric
- Type (Form T)
- Material iglidur® Z

Dimensions according to ISO 3547-1 and special dimensions

Dimensions [mm]

| Part number | d1 | d2 | s | d4 | d5 | h | d6 |
|--------------|-------|-------|-------|----------------|------------------|--------------|-------|
| | +0.25 | -0.25 | -0.05 | -0.12 +0.12 | +0.375 +0.125 | +0.2 -0.2 | +0.12 |
| ZTM-1430-015 | 14.0 | 30.0 | 1.5 | 25+/-0.20 | 2+0.10 | 1.0 | 30.0 |
| ZTM-1527-015 | 15.0 | 27.0 | 1.5 | ** | ** | 1.0 | 27.0 |
| ZTM-1535-015 | 15.0 | 35.0 | 1.5 | ** | ** | 1.0 | 35.0 |
| ZTM-1623-015 | 16.0 | 23.0 | 1.5 | ** | ** | 1.0 | 23.0 |
| ZTM-2838-015 | 28.0 | 38.0 | 1.5 | ** | ** | 1.0 | 38.0 |
| ZTM-3254-015 | 32.0 | 54.0 | 1.5 | 43.0 | 4.0 | 1.0 | 54.0 |
| ZTM-6290-020 | 62.0 | 90.0 | 2.0 | ** | ** | 1.5 | 90.0 |

** 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

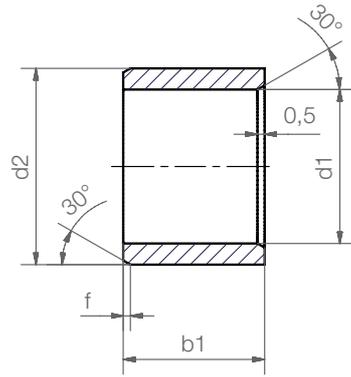


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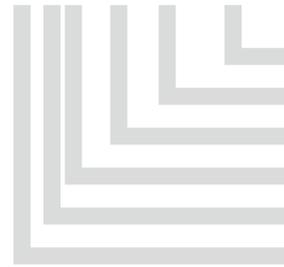
prices price list online
www.igus.eu/eu/z

Sleeve bearings



Order key

ZSI-0203-03



- Length b1
- Outer diameter d2
- Inner diameter d1
- Inch
- Type (Form S)
- Material iglidur® Z

Chamfer in relation to the d1

| | | | | |
|------------|---------------|---------------|--------------|----------|
| d1 [Inch]: | Ø 0.040–0.236 | Ø 0.236–0.472 | Ø 0.472–1.18 | Ø > 1.18 |
| f [Inch]: | 0.012 | 0.019 | 0.031 | 0.047 |

Dimensions [Inch]

| Part number | d1 | d2 | b1 | d1* | | Housing bore | | Shaft size | |
|-------------|-------|---------|-------|--------|--------|--------------|--------|------------|--------|
| | | | | max. | min. | max. | min. | max. | min. |
| ZSI-0203-03 | 1/8 | 3/16 | 3/16 | .1269 | .1251 | .1878 | .1873 | .1243 | .1236 |
| ZSI-0506-06 | 5/16 | 3/8 | 3/8 | .3148 | .3125 | .3753 | .3747 | .3115 | .3106 |
| ZSI-0607-04 | 3/8 | 15/32 | 1/4 | .3768 | .3745 | .4691 | .4684 | .3740 | .3731 |
| ZSI-0607-06 | 3/8 | 15/32 | 3/8 | .3768 | .3745 | .4691 | .4684 | .3740 | .3731 |
| ZSI-0607-08 | 3/8 | 15/32 | 1/2 | .3768 | .3745 | .4691 | .4684 | .3740 | .3731 |
| ZSI-0708-08 | 7/16 | 17/32 | 1/2 | .4399 | .4371 | .5316 | .5309 | .4365 | .4355 |
| ZSI-0809-12 | 1/2 | 19/32 | 3/4 | .5024 | .4996 | .5941 | .5934 | .4990 | .4980 |
| ZSI-0810-12 | 1/2 | 5/8 | 3/4 | .5034 | .5006 | .6260 | .6250 | .5000 | .4990 |
| ZSI-1011-12 | 5/8 | 23/32 | 3/4 | .6274 | .6246 | .7192 | .7184 | .6240 | .6230 |
| ZSI-1214-12 | 3/4 | 7/8 | 3/4 | .7532 | .7499 | .8755 | .8747 | .7491 | .7479 |
| ZSI-1214-16 | 3/4 | 7/8 | 1 | .7532 | .7499 | .8755 | .8747 | .7491 | .7479 |
| ZSI-1416-16 | 7/8 | 1 | 1 | .8782 | .8749 | 1.0005 | .9997 | .8741 | .8729 |
| ZSI-1618-16 | 1 | 1 1/8 | 1 | 1.0032 | .9999 | 1.1255 | 1.1247 | .9991 | .9979 |
| ZSI-1618-24 | 1 | 1 1/8 | 1 1/2 | 1.0032 | .9999 | 1.1255 | 1.1247 | .9991 | .9979 |
| ZSI-1820-24 | 1 1/8 | 1 9/32 | 1 1/2 | 1.1279 | 1.1246 | 1.2818 | 1.2808 | 1.1238 | 1.1226 |
| ZSI-2022-20 | 1 1/4 | 1 13/32 | 1 1/4 | 1.2537 | 1.2498 | 1.4068 | 1.4058 | 1.2488 | 1.2472 |
| ZSI-2426-24 | 1 1/2 | 1 21/32 | 1 1/2 | 1.5037 | 1.4998 | 1.6568 | 1.6558 | 1.4988 | 1.4972 |
| ZSI-2831-32 | 1 3/4 | 1 15/16 | 2 | 1.7536 | 1.7497 | 1.9381 | 1.9371 | 1.7487 | 1.7471 |
| ZSI-3235-16 | 2 | 23/16 | 1 | 2.0040 | 1.9993 | 2.1883 | 2.1871 | 1.9981 | 1.9969 |
| ZSI-3235-32 | 2 | 23/16 | 2 | 2.0040 | 1.9993 | 2.1883 | 2.1871 | 1.9981 | 1.9969 |
| ZSI-3639-32 | 2 1/4 | 27/16 | 2 | 2.2556 | 2.2519 | 2.4377 | 2.4365 | 2.2507 | 2.2489 |

* after pressfit. Testing methods ► page 75

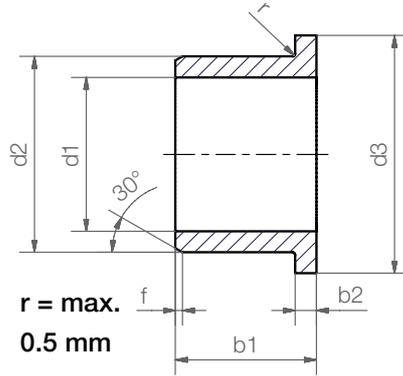


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Flange bearing

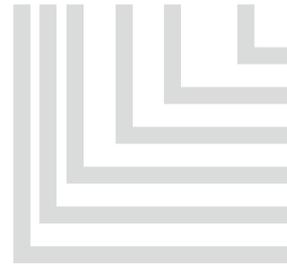


r = max.
0.5 mm



Order key

ZFI-0607-08



Length b1
Outer diameter d2
Inner diameter d1
Inch
Type (Form F)
Material iglidur® Z

Chamfer in relation to the d1

| | | | | |
|------------|---------------|---------------|--------------|----------|
| d1 [Inch]: | Ø 0.040–0.236 | Ø 0.236–0.472 | Ø 0.472–1.18 | Ø > 1.18 |
| f [Inch]: | 0.012 | 0.019 | 0.031 | 0.047 |

Dimensions [Inch]

| Part number | d1 | d2 | b1 | d3 | b2 | d1* | | Housing bore | | Shaft size | |
|-------------|-------|---------|------|-------|------|--------|--------|--------------|--------|------------|--------|
| | | | | | | max. | min. | max. | min. | max. | min. |
| ZFI-0607-08 | 3/8 | 15/32 | 1/2 | .687 | .046 | .3768 | .3745 | .4691 | .4684 | .3740 | .3731 |
| ZFI-0809-08 | 1/2 | 19/32 | 1/2 | .875 | .046 | .5024 | .4996 | .5941 | .5934 | .4990 | .4980 |
| ZFI-1012-08 | 5/8 | 3/4 | 3/4 | 1.000 | .046 | .6284 | .6256 | .7510 | .7500 | .6250 | .6240 |
| ZFI-1214-12 | 3/4 | 7/8 | 3/4 | 1.125 | .062 | .7532 | .7499 | .8755 | .8747 | .7491 | .7479 |
| ZFI-1214-16 | 3/4 | 7/8 | 1 | 1.125 | .062 | .7532 | .7499 | .8755 | .8747 | .7491 | .7479 |
| ZFI-1416-12 | 7/8 | 1 | 1 | 1.250 | .062 | .8782 | .8749 | 1.0005 | .9997 | .8741 | .8729 |
| ZFI-1416-16 | 7/8 | 1 | 1 | 1.250 | .062 | .8782 | .8749 | 1.0005 | .9997 | .8741 | .8729 |
| ZFI-1618-08 | 1 | 1 1/8 | 1 | 1.375 | .062 | 1.0032 | .9999 | 1.1255 | 1.1247 | .9991 | .9979 |
| ZFI-1618-16 | 1 | 1 1/8 | 1 | 1.375 | .062 | 1.0032 | .9999 | 1.1255 | 1.1247 | .9991 | .9979 |
| ZFI-1820-12 | 1 1/8 | 1 9/32 | 11/2 | 1.562 | .078 | 1.1279 | 1.1246 | 1.2818 | 1.2808 | 1.1238 | 1.1226 |
| ZFI-1820-24 | 1 1/8 | 1 9/32 | 11/2 | 1.562 | .078 | 1.1279 | 1.1246 | 1.2818 | 1.2808 | 1.1238 | 1.1226 |
| ZFI-2022-20 | 1 1/4 | 1 13/32 | 11/4 | 1.687 | .078 | 1.2537 | 1.2498 | 1.4068 | 1.4058 | 1.2488 | 1.2472 |
| ZFI-2022-24 | 1 1/4 | 1 13/32 | 11/4 | 1.687 | .078 | 1.2537 | 1.2498 | 1.4068 | 1.4058 | 1.2488 | 1.2472 |
| ZFI-2426-24 | 1 1/2 | 1 21/32 | 11/2 | 2.000 | .078 | 1.5037 | 1.4998 | 1.6568 | 1.6558 | 1.4988 | 1.4972 |
| ZFI-2831-32 | 1 3/4 | 1 15/16 | 2 | 2.375 | .093 | 1.7536 | 1.7497 | 1.9381 | 1.9371 | 1.7487 | 1.7471 |
| ZFI-3235-32 | 2 | 2 3/16 | 2 | 2.625 | .093 | 2.0040 | 1.9993 | 2.1883 | 2.1871 | 1.9981 | 1.9969 |

* after pressfit. Testing methods ► page 75



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