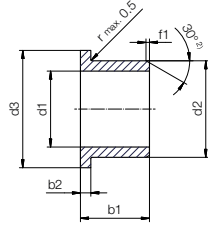


Bearing technology | Plain bearing | iglidur® J350

Flange bearing (form F)



²⁾ Thickness < 0.6mm: Chamfer = 20°

Chamfer in relation to d1

d1 [mm]	Ø 1–6	Ø 6–12	Ø 12–30	Ø > 30
f1 [mm]	0.3	0.5	0.8	1.2

i Dimensions according to ISO 3547-1 and special dimensions



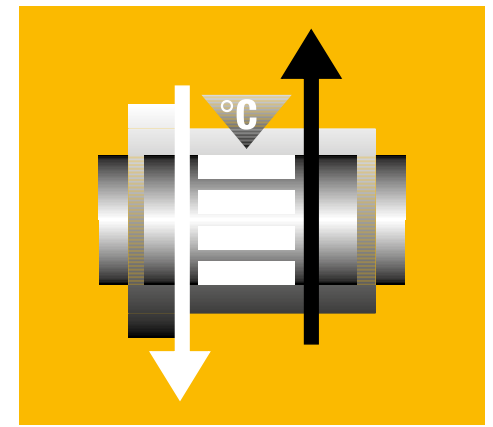
Order example: **J350FM-0608-04** – no minimum order quantity.

J350 iglidur® material **F** Flange bearing **M** Metric **06** Inner Ø d1 **08** Outer Ø d2 **04** Total length b1

d1	d1	d2	d3	b1	b2	Part No.
[mm]	Tolerance ³⁾	[mm]	d13 ³⁾	h13	h13	
6.0		8.0	12.0	4.0	1.00	J350FM-0608-04
6.0	+0.010	8.0	12.0	6.0	1.00	J350FM-0608-06
6.0	+0.058	8.0	12.0	8.0	1.00	J350FM-0608-08
8.0		10.0	15.0	5.5	1.00	J350FM-0810-05
8.0		10.0	15.0	7.5	1.00	J350FM-0810-07
8.0		10.0	15.0	9.5	1.00	J350FM-0810-09
8.0		10.0	15.0	10.0	1.00	J350FM-0810-10
10.0	+0.013	12.0	18.0	7.0	1.00	J350FM-1012-07
10.0	+0.071	12.0	18.0	9.0	1.00	J350FM-1012-09
10.0		12.0	18.0	10.0	1.00	J350FM-1012-10
10.0		12.0	18.0	12.0	1.00	J350FM-1012-12
10.0		12.0	18.0	17.0	1.00	J350FM-1012-17
12.0		14.0	20.0	7.0	1.00	J350FM-1214-07
12.0		14.0	20.0	9.0	1.00	J350FM-1214-09
12.0		14.0	20.0	12.0	1.00	J350FM-1214-12
12.0		14.0	20.0	17.0	1.00	J350FM-1214-17
14.0	+0.016	16.0	22.0	12.0	1.00	J350FM-1416-12
14.0	+0.086	16.0	22.0	17.0	1.00	J350FM-1416-17
15.0		17.0	23.0	9.0	1.00	J350FM-1517-09
15.0		17.0	23.0	12.0	1.00	J350FM-1517-12
15.0		17.0	23.0	17.0	1.00	J350FM-1517-17

d1	d1	d2	d3	b1	b2	Part No.
[mm]	Tolerance ³⁾	[mm]	d13 ³⁾	h13	h13	
16.0		18.0	24.0	12.0	1.00	J350FM-1618-12
16.0		18.0	24.0	17.0	1.00	J350FM-1618-17
18.0	+0.016	20.0	26.0	12.0	1.00	J350FM-1820-12
18.0	+0.086	20.0	26.0	17.0	1.00	J350FM-1820-17
18.0		20.0	26.0	22.0	1.00	J350FM-1820-22
20.0		23.0	30.0	11.5	1.50	J350FM-2023-11
20.0		23.0	30.0	16.5	1.50	J350FM-2023-16
20.0		23.0	30.0	21.5	1.50	J350FM-2023-21
25.0		28.0	35.0	11.5	1.50	J350FM-2528-11
25.0	+0.020	28.0	35.0	16.5	1.50	J350FM-2528-16
25.0	+0.104	28.0	35.0	21.5	1.50	J350FM-2528-21
30.0		34.0	42.0	16.0	2.00	J350FM-3034-16
30.0		34.0	42.0	22.0	2.00	J350FM-3034-22
30.0		34.0	42.0	26.0	2.00	J350FM-3034-26
30.0		34.0	42.0	37.0	2.00	J350FM-3034-37
35.0		39.0	47.0	16.0	2.00	J350FM-3539-16
35.0		39.0	47.0	26.0	2.00	J350FM-3539-26
40.0	+0.025	44.0	52.0	30.0	2.00	J350FM-4044-30
40.0	+0.125	44.0	52.0	40.0	2.00	J350FM-4044-40
45.0		50.0	58.0	50.0	2.00	J350FM-4550-50

³⁾ After press-fit. Testing methods, page 57



Ideal for plastic shafts

Wear-resistant at medium temperatures and loads

iglidur® J260



When to use it?

- When polymer shafts are used
- When the temperature rating of iglidur® J is not sufficient
- When a plain bearing with low coefficient of friction is required
- When high wear resistance is required at medium loads
- When good liquid media resistance is required



When not to use?

- When high surface pressures occur
iglidur® Z
- When continuous operating temperatures are higher than +120°C
iglidur® J350
- When universal wear resistance is required
iglidur® J

Bearing technology | Plain bearing | iglidur® J260



Ø
6.0 – 20.0mm



Also available
as:



Bar stock,
round bar
Page 676

Ideal for plastic shafts Wear-resistant at medium temperatures and loads

Time and again the iglidur® J260 material proves its worth where the maximum service life and best coefficient of friction are required under special application conditions – particularly in connection with plastic shafts!

- For low and medium loads
- High media resistance
- Slightly higher temperature rating than iglidur® J
- Long service life - even on polymer shafts and other special cases



Bar stock,
plate
Page 683

Typical application areas

- Automation
- Plant construction
- Test engineering and quality assurance
- Robotics industry
- Electronics industry



tribo-tape liner
Page 691



Piston rings
Page 581



Two hole
flange
bearings
Page 603



Moulded
special parts
Page 624



igubal®
spherical balls
Page 841

Descriptive technical specifications				
Wear resistance at +23°C	-	■ ■ ■ ■ ■		+
Wear resistance at +90°C	-	■ ■ ■ ■ ■		+
Wear resistance at +150°C	-	■ ■ ■ ■ ■		+
Low coefficient of friction	-	■ ■ ■ ■ ■		+
Low moisture absorption	-	■ ■ ■ ■ ■		+
Wear resistance under water	-	■ ■ ■ ■ ■		+
High media resistance	-	■ ■ ■ ■ ■		+
Resistant to edge pressures	-	■ ■ ■ ■ ■		+
Suitable for shock and impact loads	-	■ ■ ■ ■ ■		+
Resistant to dirt	-	■ ■ ■ ■ ■		+

Online product finder
www.igus.eu/igidur-finder

Online service life calculation
www.igus.eu/igidur-expert

Technical data

General properties		Testing method	
Density	g/cm³	1.35	
Colour		yellow	
Max. moisture absorption at +23°C and 50% r.h.	% weight	0.2	DIN 53495
Max. moisture absorption	% weight	0.4	
Coefficient of friction, dynamic, against steel	μ	0.06 – 0.20	
pv value, max. (dry)	MPa · m/s	0.35	
Mechanical properties			
Flexural modulus	MPa	2,200	DIN 53457
Flexural strength at +20°C	MPa	60	DIN 53452
Compressive strength	MPa	50	
Max. recommended surface pressure (+20°C)	MPa	40	
Shore D hardness		77	DIN 53505
Physical and thermal properties			
Max. application temperature long-term	°C	+120	
Max. application temperature short-term	°C	+140	
Min. application temperature	°C	-100	
Thermal conductivity	W/m · K	0.24	ASTM C 177
Coefficient of thermal expansion (at +23°C)	K ⁻¹ · 10 ⁻⁵	13	DIN 53752
Electrical properties			
Specific contact resistance	Ωcm	> 10 ¹²	DIN IEC 93
Surface resistance	Ω	> 10 ¹⁰	DIN 53482

Table 01: Material properties

Similar to the classic, iglidur® J, iglidur® J260 is an endurance runner with outstanding wear behaviour, but provides increased reserves at its long-term application temperature of +120°C.

Moisture absorption

Under standard climatic conditions, the moisture absorption of iglidur® J260 plain bearings is approximately 0.2% weight. The saturation limit in water is 0.4% weight. These values are so low that a moisture expansion need to be considered only in extreme cases.

Vacuum

In vacuum, any present moisture is released as vapour. Use in vacuum is only possible with dehumidified iglidur® J260 bearings.

Radiation resistance

Resistant to radiation up to an intensity of 3 · 10²Gy.

Resistance to weathering

igidur® J260 plain bearings are continuously resistant to weathering. The material properties are only slightly affected. Possible discolorations are only superficial.

Mechanical properties

With increasing temperatures, the compressive strength of iglidur® J260 plain bearings decreases. Diagram 02 shows this inverse relationship. The maximum recommended surface pressure is a mechanical material parameter. No conclusions regarding the tribological properties can be drawn from this.

Diagram 03 shows the elastic deformation of iglidur® J260 at radial loads. At the maximum recommended surface pressure of 40MPa at room temperature the deformation is less than 2.5%. A possible deformation could be, among others, dependant on the duty cycle of the load.

Surface pressure, page 41



-100°C up to
+120°C



40MPa



Permissible surface speeds

iglidur® J260 has been developed for low to medium surface speeds. The maximum values shown in table O3 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 level is rarely reached due to varying application conditions.

Surface speed, page 44

Temperature

The temperatures prevailing in the bearing system also have an influence on the wear. With increasing temperatures, the wear increases and this effect is significant when temperatures rise over +80°C. For temperatures over +80°C an additional securing is required.

Application temperatures, page 49

Additional securing, page 49

Friction and wear

Similar to wear resistance, the coefficient of friction μ also changes with the load. The coefficient of friction decreases considerably with increasing pressures, whereas a slight increase in surface speed causes an increase of the coefficient of friction (diagrams O4 and O5).

Coefficient of friction and surfaces, page 47

Wear resistance, page 50

Shaft materials

The friction and wear are also dependent, to a large degree, on the shaft material. Shafts that are too smooth, increase both the coefficient of friction and the wear of the bearing. For iglidur® J260 a ground surface with an average surface finish $R_a = 0.8\mu\text{m}$ is recommended. Diagram O6 shows the test results of iglidur® J260 plain bearings running against various shaft materials. 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 increase the wear of the overall system, if the loads exceed 2MPa. The comparison of rotating and pivoting movements in diagram O7 makes it very clear that iglidur® J260 plain bearings are most suited for rotating operation.

Shaft materials, page 52

Installation tolerances

iglidur® J260 plain bearings are standard bearings for shafts with h tolerance (recommended minimum h9). The bearings are designed for press-fit 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 57

Chemicals	Resistance
Alcohols	+ up to 0
Diluted acids	-
Diluted alkalines	+ up to 0
Fuels	-
Greases, oils without additives	0 up to -
Hydrocarbons	+
Strong acids	-
Strong alkalines	+ up to 0

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

Table O2: Chemical resistance

Chemical table, page 1636

	Rotating	Oscillating	linear
long-term	m/s 1.0	0.7	3.0
short-term	m/s 2.0	1.4	4.0

Table O3: Maximum surface speeds

	Dry	Greases	Oil	Water
Coefficient of friction μ	0.06 - 0.20	0.09	0.04	0.04

Table O4: Coefficient of friction against steel ($R_a = 1\mu\text{m}$, 50HRC)

	Housing	Plain bearing	Shaft			
$\varnothing d1$ [mm]	H7 [mm]	E10 [mm]	h9 [mm]			
0 - 3	+0.000	+0.010	+0.014	+0.054	-0.025	+0.000
> 3 - 6	+0.000	+0.012	+0.020	+0.068	-0.030	+0.000
> 6 - 10	+0.000	+0.015	+0.025	+0.083	-0.036	+0.000
> 10 - 18	+0.000	+0.018	+0.032	+0.102	-0.043	+0.000
> 18 - 30	+0.000	+0.021	+0.040	+0.124	-0.052	+0.000
> 30 - 50	+0.000	+0.025	+0.050	+0.150	-0.062	+0.000
> 50 - 80	+0.000	+0.030	+0.060	+0.180	-0.074	+0.000
> 80 - 120	+0.000	+0.035	+0.072	+0.212	-0.087	+0.000
> 120 - 180	+0.000	+0.040	+0.085	+0.245	-0.100	+0.000

Table O5: Important tolerances for plain bearings according to ISO 3547-1 after press-fit

Technical data

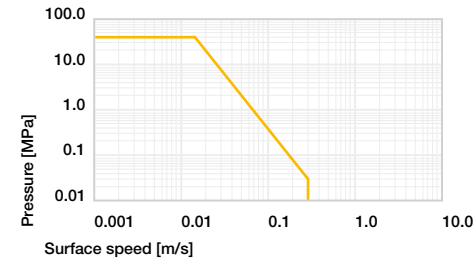


Diagram O1: Permissible pv values for iglidur® J260 plain bearings with a wall thickness of 1mm, dry operation against a steel shaft, at +20°C, mounted in a steel housing

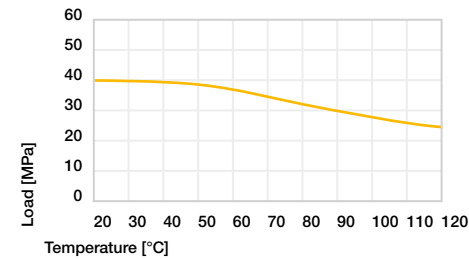


Diagram O2: Maximum recommended surface pressure as a function of temperature (40MPa at +20°C)

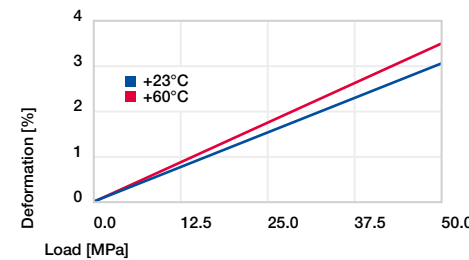


Diagram O3: Deformation under pressure and temperature

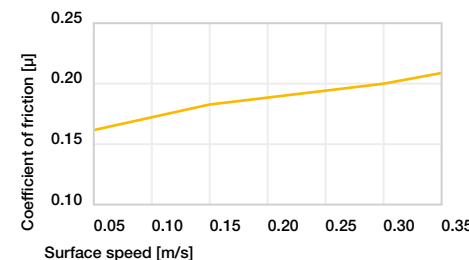


Diagram O4: Coefficient of friction as a function of the surface speed, $p = 0.75\text{MPa}$

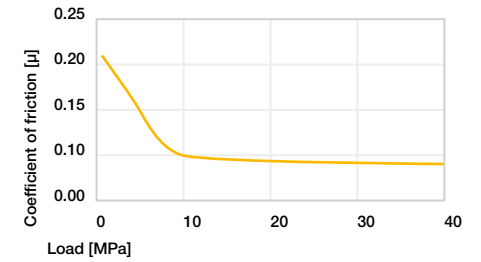


Diagram O5: Coefficient of friction as a function of the load, $v = 0.01\text{m/s}$

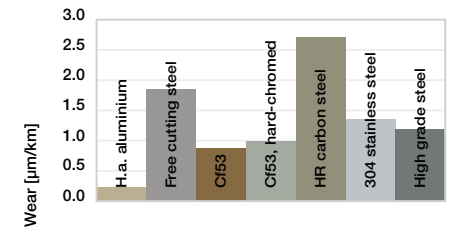


Diagram O6: Wear, rotating with different shaft materials, pressure, $p = 1\text{MPa}$, $v = 0.3\text{m/s}$

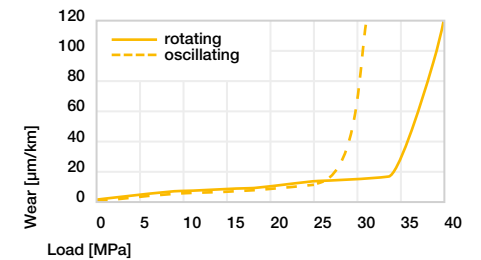
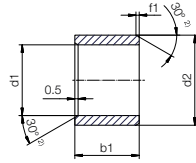


Diagram O7: Wear for oscillating and rotating applications with shaft material Cf53 hardened and ground steel, as a function of the load

Bearing technology | Plain bearing | iglidur® J260

Sleeve bearing (form S)



²⁾ Thickness < 0.6mm: Chamfer = 20°

i Dimensions according to ISO 3547-1 and special dimensions

Chamfer in relation to d1

d1 [mm]	Ø 1–6	Ø 6–12	Ø 12–30
f1 [mm]	0.3	0.5	0.8



Order example: J260SM-0608-06 – no minimum order quantity.

J260 iglidur® material **S** Sleeve bearing **M** Metric **06** Inner Ø d1 **08** Outer Ø d2 **06** Total length b1

d1	d1 Tolerance ³⁾	d2	b1 h13	Part No.
[mm]		[mm]	[mm]	
6.0	+0.020 +0.068	8.0	6.0	J260SM-0608-06
8.0		10.0	6.0	J260SM-0810-06
8.0	+0.025 +0.083	10.0	10.0	J260SM-0810-10
10.0		12.0	10.0	J260SM-1012-10
12.0		14.0	12.0	J260SM-1214-12
12.0		14.0	15.0	J260SM-1214-15
16.0		18.0	13.5	J260SM-1618-135
16.0	+0.032 +0.102	18.0	15.0	J260SM-1618-15
18.0		20.0	12.0	J260SM-1820-12
18.0		20.0	20.0	J260SM-1820-20
20.0	+0.040 +0.124	23.0	20.0	J260SM-2023-20

³⁾ After press-fit. *Testing methods, page 57*



Available from stock

Detailed information about delivery time online.

www.igus.eu/24



Online ordering

Including delivery times, prices, online tools

www.igus.eu/J260



Ordering note

Our prices are scaled according to order quantities, current prices can be found online.

Discount scaling		
1 – 9	50 – 99	500 – 999
10 – 24	100 – 199	1,000 – 2,499
25 – 49	200 – 499	2,500 – 4,999

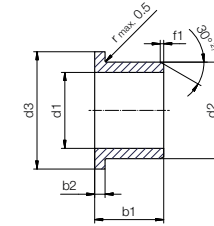
No minimum order value.

No low-quantity surcharges.

Free shipping within Germany for orders above €150.

Bearing technology | Plain bearing | iglidur® J260

Flange bearing (form F)



²⁾ Thickness < 0.6mm: Chamfer = 20°

i Dimensions according to ISO 3547-1 and special dimensions

Chamfer in relation to d1

d1 [mm]	Ø 1–6	Ø 6–12	Ø 12–30
f1 [mm]	0.3	0.5	0.8



Order example: J260FM-0608-06 – no minimum order quantity.

J260 iglidur® material **F** Flange bearing **M** Metric **06** Inner Ø d1 **08** Outer Ø d2 **06** Total length b1

d1	d1 Tolerance ³⁾	d2	d3 d13 ³⁾	b1 h13	b2 h13	Part No.
[mm]		[mm]	[mm]	[mm]	[mm]	
6.0	+0.020 +0.068	8.0	12.0	6.0	1.00	J260FM-0608-06
8.0		10.0	15.0	10.0	1.00	J260FM-0810-10
8.0	+0.025 +0.083	10.0	18.0	10.0	1.00	J260FM-1012-10
10.0		12.0	20.0	12.0	1.00	J260FM-1214-12
12.0		14.0	24.0	17.0	1.00	J260FM-1618-17
16.0	+0.032 +0.102	18.0	30.0	21.5	1.50	J260FM-2023-21
20.0	+0.040 +0.124	23.0				

³⁾ After press-fit. *Testing methods, page 57*



Available from stock

Detailed information about delivery time online.

www.igus.eu/24



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Including delivery times, prices, online tools

www.igus.eu/J260



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Discount scaling		
1 – 9	50 – 99	500 – 999
10 – 24	100 – 199	1,000 – 2,499
25 – 49	200 – 499	2,500 – 4,999

No minimum order value.

No low-quantity surcharges.

Free shipping within Germany for orders above €150.