

igus[®]



xiros[®]



Ball Bearings
iglide® B180
PA cage
Stainless steel balls

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Ball Bearings
iglide® B180
PA cage
Glass balls

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Ball Bearings
iglide® A500
PA cage
Stainless steel balls

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Ball Bearings
iglide® A500
PEEK cage
Stainless steel balls

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Ball Bearings
iglide® A500
PEEK cage
Glass balls

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Ball Bearings
iglide® A500
PEEK cage
PAI balls

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Ball Bearings
iglide® C160
PP cage
Stainless steel balls

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Ball Bearings
iglide® C160
PP cage
Glass balls

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Ball Bearings
iglide® B180
PA cage
Stainless steel balls
with cover plate

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Ball Bearings
iglide® B180
PA cage
Glass balls
with cover plate

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Slewing Ring Bearings
iglide® B180
Stainless steel balls

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Slewing Ring Bearings
iglide® B180
Glass balls

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Ball Transfer Unit
iglide® B180
POM balls

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ESTM Pillow Block
iglide® B180
Stainless steel or
Glass balls
Fixed

Page 16.20



ESTM Pillow Block
iglide® B180
Stainless steel or
Glass balls
Pivoting

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EFSM 4-Bolt Flange
iglide® B180
Stainless steel or
Glass balls

Page 16.22



EFOM 2-Bolt Flange
iglide® B180
Stainless steel or
Glass balls

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Thermoforming Machine

In this thermoforming machine for coffee-cream portion packs, xiros® plastic ball bearings are used for their high chemical resistance.



Indexing Table

This indexing table is used to test metal balls for cracks and dimensional accuracy. xiros® plastic ball bearings are used here as wheels for the trolley.



Wet Film Thickness Gage

This precision tester for accurate and rapid measurement of all liquid paint, coatings, oil coatings and adhesives is equipped with a durable and solvent resistant xiros® B180 ball bearing.



Film Guide Rollers

There is no contamination of the films through lubricants, due to the use of maintenance-free xiros® flange bearings.



Model Plane

The use of remote controlled model aircraft is being tested and demonstrated as a remote sensing platform at the Institute of Space Systems (IRS). Due to the extreme low weight requirements, the xiros® flange bearings are used here.



Small Robot

The wheels of this little low cost robot are two xiros® B180 plastic ball bearings. These ensure a totally maintenance-free, lubricant-free and easily functioning application.

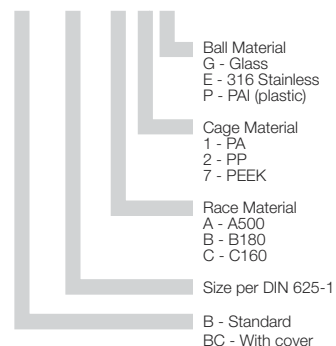
Product Range

- Available in 3 materials
- 10 product types are available
- Inner diameters:
Metric sizes from 3 - 60 mm

Part Number Structure

Part Number Structure

B 6004 A 1 G



Temperatures

	Minimum	Maximum
A500	-148°F (PEEK)	+302°F
	-40°F (PAI)	+302°F
B180	-40°F	+176°F
C160	-40°F	+176°F

Usage Guidelines



- For rotational speeds that exceed the limits of a plain bearing
- When corrosion resistance is required
- For temperatures up to 302°F (depending on material)
- When chemical resistance is required
- If non-magnetic ball bearings are needed
- When FDA compliance is needed (A500 with PEEK cage)



- For high loads at high speeds
- When very tight clearances are required

iglide® xiros® ball bearing open up fields of application for plastic bearings. The inner and outer races of the iglide® xiros® are made from high performance iglide® materials. The corrosion-free balls are made from stainless steel. Glass balls are also available for maximum corrosion resistance. xiros® made from the A500 material is temperature-resistant up to 302°F, while the xiros® from the B180 material is designed for temperatures up to 176°F.



Material Table

General Properties	Unit	iglide® A500	iglide® B180	iglide® C160
Density	g/cm³	1.28	1.41	1.11
Color		Brown	Cream	opaque
Max. moisture absorption at 73°F/50% r.h.	% weight	0.3	0.3	0.1
Max. moisture absorption	% weight	0.5	1.3	0.2

Mechanical Properties

Modulus of elasticity	psi	522,100	348,090	275,571
Tensile strength at 68°F	psi	20,300	10,587	5,076
Shore D-hardness		83	74	67

Electrical Properties

Specific volume resistance	Ωcm	> 10 ¹⁴	10 ¹³	10 ¹⁴
Surface resistance	Ω	> 10 ¹³	10 ¹²	10 ¹⁴

Recommendation of tolerance for bore and shaft at xiros® radial ball bearings

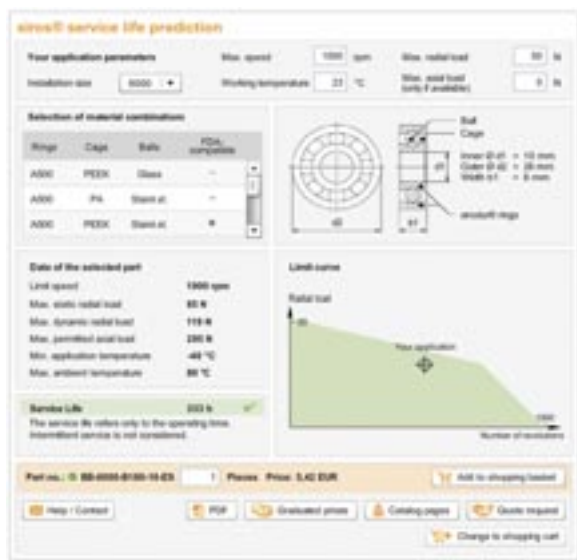
We recommend a H7-tolerance of the housing bore of xiros® radial ball bearings and a h6-tolerance of the shaft. For further questions about the dimensioning of the bore and the shaft please contact us.



xiros® polymer ball bearings are comprised of a variety of different product materials. No xiros® part requires any additional lubrication. Other advantages are (depending on the design):

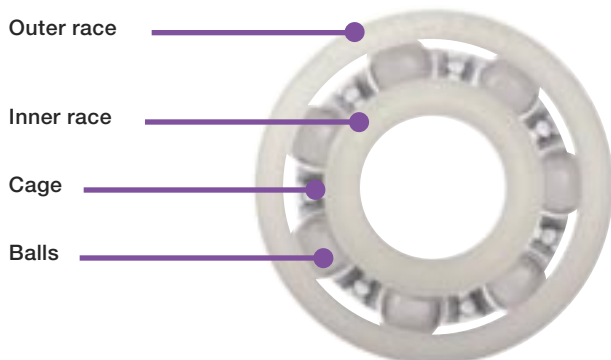
- Maintenance-free
- Light weight
- Free from metal (when using glass and plastic balls)
- Non-magnetic
- Chemical resistant
- Corrosion resistant
- Electrically insulating
- FDA-compliant
- Predictable lifetime

The predictability of xiros® polymer ball bearing is one of the most important advantages. Based on the results of many wear tests, the user can calculate the lifetime of the xiros® polymer ball bearings using the xiros® expert system.



Design

The xiros® polymer ball bearings are single-row grooved ball bearings based on DIN 625. The lubricant-free and maintenance-free ball bearings consist of four components:



The Outer- and Inner Race

The suitability of a xiros® polymer ball bearings is largely determined by the materials of the two races. These are made from igus® tribopolymers to maximize service life and minimize friction. You can choose from three different materials and they allow different values of application temperature, chemical resistance and loading. Please refer to the Material Data Table on the previous page for details about general, mechanical and electrical properties.

The Cage

The cage materials in xiros® ball bearings should also be taken into consideration. The different materials differ greatly in terms of chemical resistance and temperature abilities.

The Balls

The ball materials differ significantly. In addition to 316 stainless steel balls, we also offer glass and plastic versions. The difference in ball materials has an effect on mass, which in turn affects smoothness, weight and chemical resistance.

Stainless steel balls are both cost-effective and chemical resistant, but also have the highest weight of the three options.

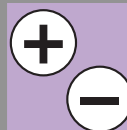
Glass balls offer a metal-free solution. They offer high chemical resistant and lower weight.

Plastic balls are the lowest weight of the three options. Plastic balls are quiet and also, depending on which race material is used, offer excellent chemical resistance.

Pillow Block and Flange Bearings

This range is made up by combining xiros® polymer ball bearing with the igubal® pillow block and flange bearings, resulting in a higher flexibility in terms of installation of the bearings. The pre-finished bearing housing makes it easy for the user to use these maintenance-free components. Both flanged and pillow block designs are available as fixed or pivoting.

The difference between the two options is that the pivoting type can compensate for shaft and/or bearing misalignment. A spherical outer race is pressed into the bearing housing, ensuring self aligning action.





Application Areas

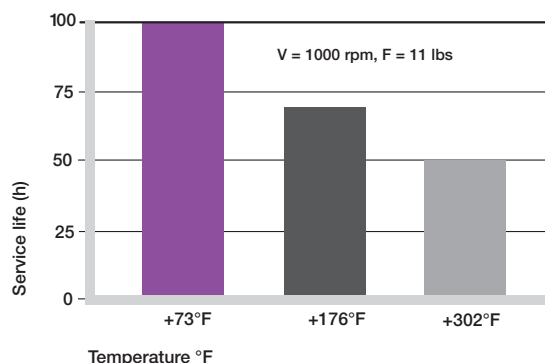
In contrast to metallic ball bearings, xiros® plastic ball bearings run without any lubrication. Applications requiring cleanroom, chemical resistance or need to be contaminant-free in industries such as medical, food, packaging, electronics and many more are a perfect area for the xiros® ball bearings.

Development and Tests

Through numerous tests the race materials were optimized. The plastics igus® developed for use with xiros® ball bearings allow higher speeds, greater loads, and longer service life. Plastic ball bearing technology will continue to advance, especially with igus®' experience and development of tribological plastic materials.

In the igus® test laboratory the life and wear of xiros® plastic ball bearings was and continues to be tested. In addition to the actual material comparison, tests indicate these experiments also answer questions about the impact of external influences such as temperature, humidity or dust.

The material combinations for bearing races, balls and cages are tested in the igus® test laboratory for a variety of loads and speeds. Thus, the application-specific selection of the suitable bearing and a Lifetime calculation is possible.

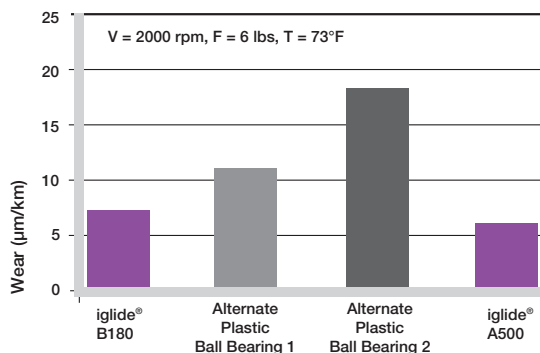


Service life of iglide® A500 plastic ball bearings at different ambient temperatures, dry

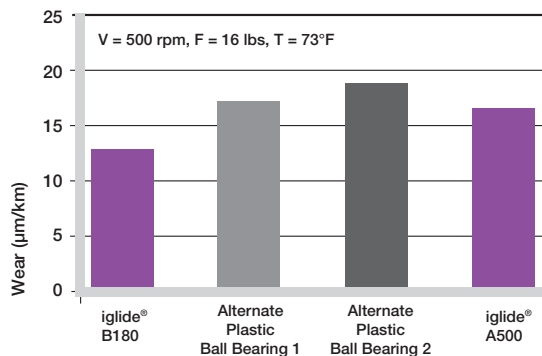
Predictability

As part of the development of xiros® polymer ball bearing tests are carried out continuously. The extreme number of test results make it very difficult to present this information in one table.

It is for this reason that igus has developed the online life calculator, which uses real test results to give an accurate calculation.



Wear test in igus® laboratory



Wear test in igus® laboratory



Test benches for xiros® plastic ball bearings at igus® laboratory



The lifetime-calculator is online at
www.igus.eu/xiros-expert

Immediately after entering the data, the lifetime is calculated and displayed. It is important to remember that the result given is based on actual test results in the igus laboratory, and is therefore completely reliable.

iglide® xiros®

xiros® service life prediction

Your application parameters

Installation size:

Max. speed: rpm

Max. radial load: N

Working temperature: °C

Max. axial load (only if available): N

Selection of material combinations:

Rings	Cage	Balls	FDA-compatible
A500	PEEK	Glass	-
A500	PA	Stainl.st.	-
A500	PEEK	Stainl.st.	•

Inner Ø d1 = 10 mm
Outer Ø d2 = 26 mm
Width b1 = 8 mm

Data of the selected part

Limit speed: 1900 rpm

Max. static radial load: 85 N

Max. dynamic radial load: 119 N

Max. permitted axial load: 285 N

Min. application temperature: -40 °C

Max. ambient temperature: 80 °C

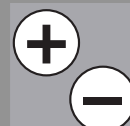
Limit curve

Service Life 333 h ✓

The service life refers only to the operating time. Intermittent service is not considered.

Part no.: Pieces Price: 5,42 EUR

PDF: www.igus.com/iglide-pdfs
CAD: www.igus.com/iglide-CAD
RoHS info: www.igus.com/RoHS





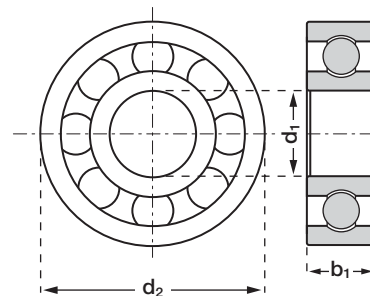
xiros® Ball Bearings B180 Material, PA Cage Stainless Steel Balls, mm

xiros® B180 plastic ball bearings are for use with temperatures up to 176°F. The specially developed material iglide® B180 provides significantly longer lifetimes at a lower cost.



iglide® B180 PA cage, stainless steel balls

Temperature range
-40°F to +176°F



Dimensions (mm)

Part number	Race Material	Cage Material	Ball Material	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Width b1 (mm)
B623B1E	B180	PA	316 SS	3	10	4
B625B1E	B180	PA	316 SS	5	15	5
B626B1E	B180	PA	316 SS	6	19	6
B608B1E	B180	PA	316 SS	8	22	7
B6000B1E	B180	PA	316 SS	10	26	8
B6001B1E	B180	PA	316 SS	12	28	8
B6003B1E	B180	PA	316 SS	17	35	10
B6004B1E	B180	PA	316 SS	20	42	12
B6005B1E	B180	PA	316 SS	25	47	12
B6006B1E	B180	PA	316 SS	30	55	13
B6007B1E	B180	PA	316 SS	35	62	14
B6008B1E	B180	PA	316 SS	40	68	15
B6009B1E	B180	PA	316 SS	45	75	16
B6010B1E	B180	PA	316 SS	50	80	16
B6011B1E	B180	PA	316 SS	55	90	18
B6012B1E	B180	PA	316 SS	60	95	18

Technical Data

Part number	Max. Static load axial (lbs)	Static load rating (lbs)	Dynamic load rating (lbs)	Maximum speed (rpm)	Weight (g)
B623B1E	7	6	8	4,500	0.4
B625B1E	17	9	13	3,100	1.0
B626B1E	21	11	16	2,600	2.2
B608B1E	37	13	19	2,200	3.9
B6000B1E	64	19	27	1,900	6.1
B6001B1E	71	24	33	1,750	6.9
B6003B1E	81	40	56	1,400	11.1
B6004B1E	90	47	66	1,150	20.2
B6005B1E	117	54	81	1,050	23.9
B6006B1E	144	63	94	900	35.0
B6007B1E	162	72	108	800	47.0
B6008B1E	180	78	117	750	56.3
B6009B1E	202	85	126	650	71.5
B6010B1E	214	88	130	600	83.1
B6011B1E	225	90	135	550	125.2
B6012B1E	247	94	144	500	129.6

iglide® xiros

Telephone 1-800-521-2747
Fax 1-401-438-7270

Internet: <http://www.igus.com>
email: sales@igus.com
QuickSpec: <http://www.igus.com/iglide-quickspec>

xiros® Ball Bearings B180 Material, PA Cage Glass Balls, mm

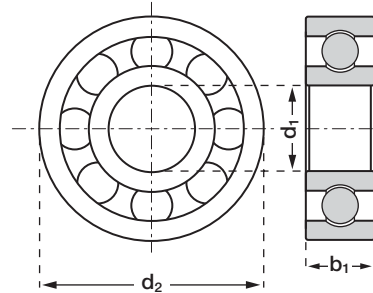


xiros® B180 plastic ball bearings are for use with temperatures up to 176°F. The specially developed material iglide® B180 provides significantly longer lifetimes at a lower cost.



iglide® B180 PA cage,
glass balls

Temperature range
-40°F to +176°F



iglide® xiros®

Dimensions (mm)

Part number	Race Material	Cage Material	Ball Material	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Width b1 (mm)
B623B1G	B180	PA	Glass	3	10	4
B625B1G	B180	PA	Glass	5	15	5
B626B1G	B180	PA	Glass	6	19	6
B608B1G	B180	PA	Glass	8	22	7
B6000B1G	B180	PA	Glass	10	26	8
B6001B1G	B180	PA	Glass	12	28	8
B6003B1G	B180	PA	Glass	17	35	10
B6004B1G	B180	PA	Glass	20	42	12
B6005B1G	B180	PA	Glass	25	47	12
B6006B1G	B180	PA	Glass	30	55	13
B6007B1G	B180	PA	Glass	35	62	14
B6008B1G	B180	PA	Glass	40	68	15
B6009B1G	B180	PA	Glass	45	75	16
B6010B1G	B180	PA	Glass	50	80	16
B6011B1G	B180	PA	Glass	55	90	18
B6012B1G	B180	PA	Glass	60	95	18

Technical Data

Part number	Max. static load axial (lbs)	Static load rating (lbs)	Dynamic load rating (lbs)	Maximum speed (rpm)	Weight (g)
B623B1G	7	6	8	4,500	0.3
B625B1G	17	9	13	3,100	1.0
B626B1G	21	11	16	2,600	1.7
B608B1G	37	13	19	2,200	2.6
B6000B1G	64	19	27	1,900	4.0
B6001B1G	71	24	33	1,750	4.5
B6003B1G	81	40	56	1,400	7.9
B6004B1G	90	47	66	1,150	13.6
B6005B1G	117	54	81	1,050	16.7
B6006B1G	144	63	94	900	24.2
B6007B1G	162	72	108	800	31.3
B6008B1G	180	78	117	750	39.1
B6009B1G	202	85	126	650	48.6
B6010B1G	214	88	130	600	56.4
B6011B1G	225	90	135	550	84.4
B6012B1G	247	94	144	500	85.6

PDF: www.igus.com/iglide-pdfs
CAD: www.igus.com/iglide-CAD
RoHS info: www.igus.com/RoHS





xiros® Ball Bearings A500 Material, PA Cage Stainless Steel Balls, mm

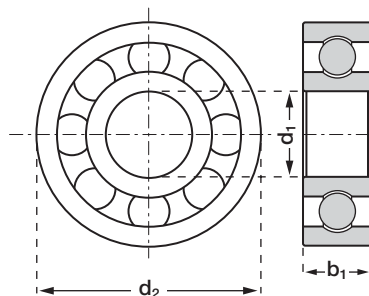
xiros® polymer ball bearings with the combination of PA cage and stainless steel balls are the economic alternative of the iglide® A500 product range, when temperature is merely up to 302°F and no chemicals are in use.

iglide® xiros



Special properties

- For temperatures up to 302°F
- Maximum chemical resistance



iglide® A500, PA cage,
stainless steel balls

Temperature range
-40°F to +302°F

Dimensions (mm)

Part number	Race Material	Cage Material	Ball Material	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Width b1 (mm)
B623A1E	A500	PA	316 SS	3	10	4
B626A1E	A500	PA	316 SS	6	19	6
B608A1E	A500	PA	316 SS	8	22	7
B6000A1E	A500	PA	316 SS	10	26	8
B6004A1E	A500	PA	316 SS	20	42	12

Technical Data

Part number	Max. static load axial (lbs)	Static load rating (lbs)	Dynamic load rating (lbs)	Maximum speed (rpm)	Weight (g)
B623A1E	9	7	9	5,000	0.4
B626A1E	28	13	18	3,200	2.3
B608A1E	50	16	22	2,700	3.7
B6000A1E	85	23	31	2,100	6.0
B6004A1E	146	56	78	1,300	19.4

Telephone 1-800-521-2747
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Internet: <http://www.igus.com>
email: sales@igus.com
QuickSpec: <http://www.igus.com/iglide-quickspec>

xiros® Ball Bearings A500 Material, PEEK Cage Stainless Steel Balls , mm

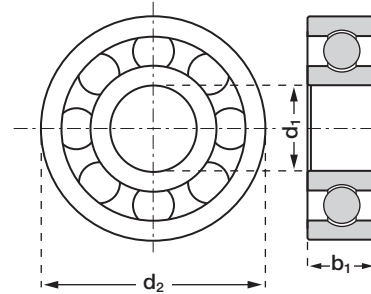


xiros® plastic ball bearings open up new application areas for plastic roller bearings. After the 2007 market launch, the lifetime of the high-temperature option with iglide® A500 inner and outer races could be clearly raised by up 5 times.



Special properties

- For temperatures up to 302°F
- Maximum chemical resistance



iglide® A500, PEEK cage,
stainless steel balls

Temperature range
-40°F to +302°F



PEEK cages, inner and outer races made
from FDA compliant polymers

Dimensions (mm)

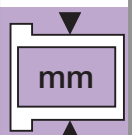
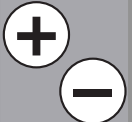
Part number	Race Material	Cage Material	Ball Material	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Width b1 (mm)
B623A7E	A500	PEEK	316 SS	3	10	4
B626A7E	A500	PEEK	316 SS	6	19	6
B608A7E	A500	PEEK	316 SS	8	22	7
B6000A7E	A500	PEEK	316 SS	10	26	8
B6004A7E	A500	PEEK	316 SS	20	42	12

Technical Data

Part number	Max. static load axial (lbs)	Static load rating (lbs)	Dynamic load rating (lbs)	Maximum speed (rpm)	Weight (g)
B623A7E	9	7	9	5,000	0.4
B626A7E	28	13	18	3,200	2.3
B608A7E	50	16	22	2,700	3.7
B6000A7E	85	23	31	2,100	6.0
B6004A7E	146	56	78	1,300	19.4

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CAD: www.igus.com/iglide-CAD
RoHS info: www.igus.com/RoHS





xiros® Ball Bearings A500 Material, PEEK Cage Glass Balls, mm

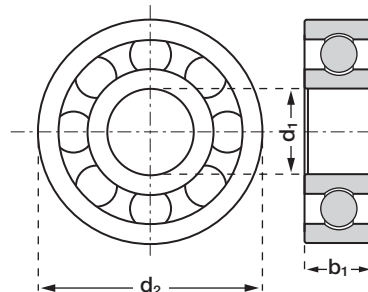
xiros® plastic ball bearings in combination with a PEEK cage and glass balls are often used in environments where high chemical resistance is necessary and should be free of stainless steel components.

iglide® xiros



Special properties

- For temperatures up to 302°F
- Maximum chemical resistance



iglide® A500, PEEK cage, glass balls

Temperature range
-148°F to +302°F

Dimensions (mm)

Part number	Race Material	Cage Material	Ball Material	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Width b1 (mm)
B623A7G	A500	PEEK	Glass	3	10	4
B626A7G	A500	PEEK	Glass	6	19	6
B608A7G	A500	PEEK	Glass	8	22	7
B6000A7G	A500	PEEK	Glass	10	26	8
B6004A7G	A500	PEEK	Glass	20	42	12

Technical Data

Part number	Max. static load axial (lbs)	Static load rating (lbs)	Dynamic load rating (lbs)	Maximum speed (rpm)	Weight (g)
B623A7G	9	7	9	5,000	0.3
B626A7G	28	13	18	3,200	1.6
B608A7G	50	16	22	2,700	2.4
B6000A7G	85	23	31	2,100	3.8
B6004A7G	146	56	78	1,300	13.2

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xiros® Ball Bearings A500 Material, PEEK Cage PAI Balls, mm

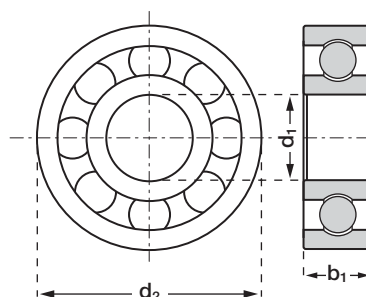


iglide® plastic ball bearings are also available with plastic balls. At low loads the wear resistance can be improved by a factor of 3.



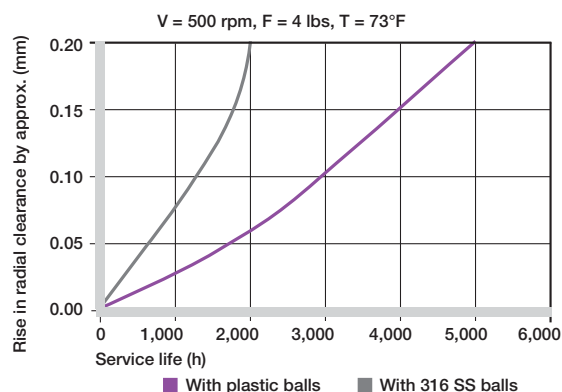
Special properties

- Improved wear resistance
- Lightest weight
- For temperatures up to 302°F
- Maximum chemical resistance



iglide® A500, PEEK cage, PAI
Balls

Temperature range
-148°F to +302°F



Dimensions (mm)

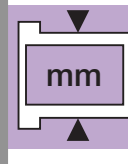
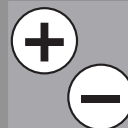
Part number	Race Material	Cage Material	Ball Material	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Width b1 (mm)
B626A7P	A500	PEEK	PAI	6	19	6
B608A7P	A500	PEEK	PAI	8	22	7
B6000A7P	A500	PEEK	PAI	10	26	8
B6004A7P	A500	PEEK	PAI	20	42	12

Technical Data

Part number	Max. static load axial (lbs)	Static load rating (lbs)	Dynamic load rating (lbs)	Maximum speed (rpm)	Weight (g)
B626A7P	7	3	4	3,200	1.4
B608A7P	12	4	6	2,700	2.2
B6000A7P	21	5	8	2,100	3.4
B6004A7P	36	14	20	1,300	11.7

iglide® xiros®

PDF: www.igus.com/iglide-pdfs
CAD: www.igus.com/iglide-CAD
RoHS info: www.igus.com/RoHS

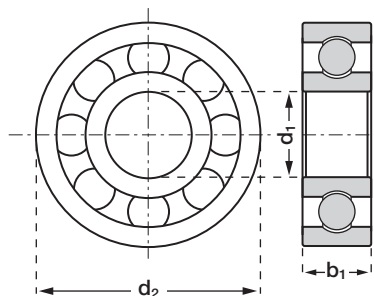




xiros® Ball Bearings C160 Material, PP Cage Stainless Steel Balls, mm

The ball bearing material iglide® C160 is cost-effective and very resistant to chemicals. iglide® C160 can be used with temperatures up to 176°F.

iglide® xiros



iglide® C160, PP cage, Stainless Steel Balls

Temperature range
32°F to +176°F

Dimensions and materials

Part number	Race Material	Cage Material	Ball Material	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Width b1 (mm)
B623C2E	C160	PP	316 SS	3	10	4
B626C2E	C160	PP	316 SS	6	19	6
B608C2E	C160	PP	316 SS	8	22	7
B6000C2E	C160	PP	316 SS	10	26	8

Technical Data

Part number	Max. static load axial (lbs)	Static load rating (lbs)	Dynamic load rating (lbs)	Maximum speed (rpm)	Weight (g)
B623C2E	2	4	6	4,500	0.3
B626C2E	6	9	13	2,600	2.1
B608C2E	11	11	15	2,200	3.4
B6000C2E	19	15	21	1,900	5.6

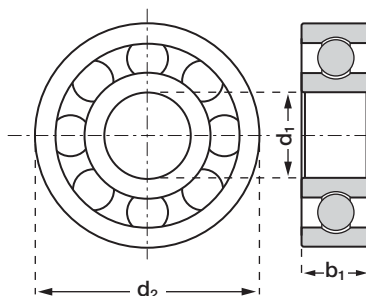
Telephone 1-800-521-2747
Fax 1-401-438-7270

Internet: <http://www.igus.com>
email: sales@igus.com
QuickSpec: <http://www.igus.com/iglide-quickspec>

xiros® Ball Bearings C160 Plastic Ball Bearings PP Cage, Glass Balls, mm



xiros® plastic ball bearings in combination with a PEEK cage and glass balls are often used in environments where high chemical resistance is necessary and should be free of stainless steel components.



iglide® C160, PP cage, Glass Balls

Temperature range
32°F to +176°F

Dimensions and materials

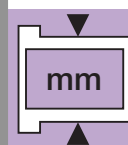
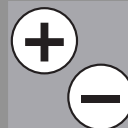
Part number	Race Material	Cage Material	Ball Material	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Width b1 (mm)
B623C2G	C160	PP	Glass	3	10	4
B626C2G	C160	PP	Glass	6	19	6
B608C2G	C160	PP	Glass	8	22	7
B6000C2G	C160	PP	Glass	10	26	8

Technical Data

Part number	Max. static load axial (lbs)	Static load rating (lbs)	Dynamic load rating (lbs)	Maximum speed (rpm)	Weight (g)
B623C2G	2	4	6	4,500	0.3
B626C2G	6	9	13	2,600	1.4
B608C2G	11	11	15	2,200	2.2
B6000C2G	19	15	21	1,900	3.5

iglide® xiros®

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CAD: www.igus.com/iglide-CAD
RoHS info: www.igus.com/RoHS





xiros® Ball Bearings B180 Material, PA Cage Stainless Steel Balls with Cover Plate

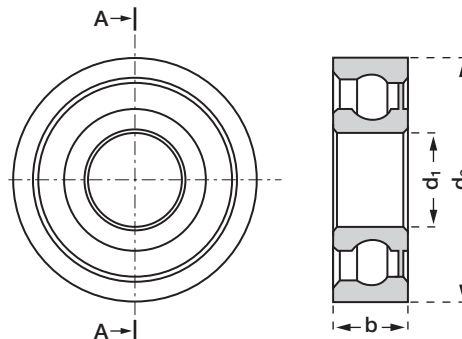
xiros® plastic ball bearings made of iglide® B180 with cover to prevent the penetration of dirt and other abrasive particles. The one-sided cover is fixed to the inner race. The other side is protected by the enclosed ball cage.

iglide® xiros



Special properties

- Dirt-repellent
- Balls protected by cover plate



iglide® B180, PA cage, Stainless Steel Balls with Cover Plate

Temperature range
-40°F to +176°F

Dimensions and materials

Part number	Race Material	Cage Material	Ball Material	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Width b1 (mm)
BC623B1E	B180	PA	316 SS	3	10	4
BC626B1E	B180	PA	316 SS	6	19	6
BC608B1E	B180	PA	316 SS	8	22	7
BC6000B1E	B180	PA	316 SS	10	26	8
BC6001B1E	B180	PA	316 SS	12	28	8
BC6003B1E	B180	PA	316 SS	17	35	10
BC6004B1E	B180	PA	316 SS	20	42	12

Technical Data

Part number	Max. static load axial (lbs)	Static load rating (lbs)	Dynamic load rating (lbs)	Maximum speed (rpm)	Weight (g)
BC623B1E	7	6	8	4,500	0.4
BC626B1E	21	11	16	2,600	2.5
BC608B1E	37	13	19	2,200	4.0
BC6000B1E	64	19	27	1,900	6.3
BC6001B1E	71	24	33	1,750	7.1
BC6003B1E	81	40	56	1,400	11.5
BC6004B1E	90	47	66	1,150	19.7

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xiros® Ball Bearings

B180 Material, PA Cage

Glass Balls with Cover Plate

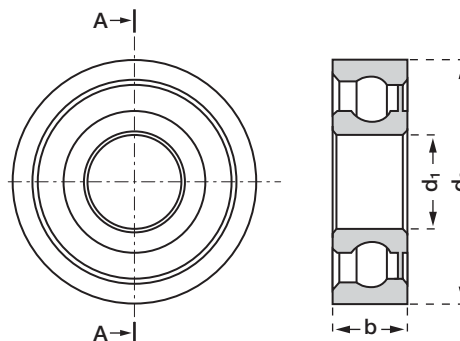


xiros® plastic ball bearings made of iglide® B180 with cover to prevent the penetration of dirt and other abrasive particles. The one-sided cover is fixed to the inner race. The other side is protected by the enclosed ball cage.



Special properties

- Dirt-repellent
- Balls protected by cover plate



iglide® B180, PA cage, Stainless Steel Balls
with Cover Plate

Temperature range
-40°F to +176°F

Dimensions and materials

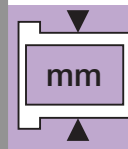
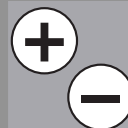
Part number	Race Material	Cage Material	Ball Material	Inner-Ø d1 (mm)	Outer-Ø d2 (mm)	Width b1 (mm)
BC623B1G	B180	PA	Glass	3	10	4
BC626B1G	B180	PA	Glass	6	19	6
BC608B1G	B180	PA	Glass	8	22	7
BC6000B1G	B180	PA	Glass	10	26	8
BC6001B1G	B180	PA	Glass	12	28	8
BC6003B1G	B180	PA	Glass	17	35	10
BC6004B1G	B180	PA	Glass	20	42	12

Technical Data

Part number	Max. static load axial (lbs)	Static load rating (lbs)	Dynamic load rating (lbs)	Maximum speed (rpm)	Weight (g)
BC623B1G	7	6	8	4,500	0.4
BC626B1G	21	11	16	2,600	1.8
BC608B1G	37	13	19	2,200	2.7
BC6000B1G	64	19	27	1,900	4.1
BC6001B1G	71	24	33	1,750	4.7
BC6003B1G	81	40	56	1,400	8.4
BC6004B1G	90	47	66	1,150	14.2

iglide® xiros®

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CAD: www.igus.com/iglide-CAD
RoHS info: www.igus.com/RoHS





xiros® Ball Bearings B180 Slewing Ring Bearings Stainless Steel or Glass Balls

The combination of stainless steel balls with plastic inner and outer races results in maintenance-free dry operation with low coefficients of friction. The xiros® slewing ring bearing can be used in temperatures up to 176°F.

iglide® xiros

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Fax 1-401-438-7270

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Special properties

- Lightweight
- Cost-effective

Part Number Structure

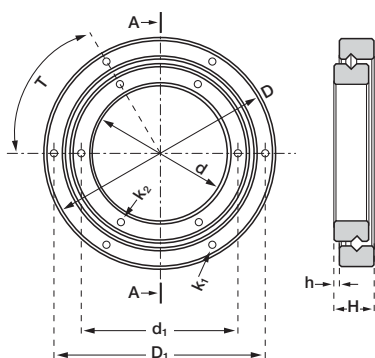
BRT 60 G



iglide® B180, PP cage,
Stainless Steel Balls

iglide® B180, PP cage,
Glass Balls

Temperature range
-40°F to +176°F



Dimensions and materials

Part number	Balls	D	D1	d	d1	H	h	T	K1 Ø	K2 Ø
Stainless Steel Balls										
BRT60E	316 SS	100	90	60	68	17.5	2.5	60	3.3	3.3
BRT100E	316 SS	160	150	100	110	20	5	60	6.4	6.4
Glass Balls										
BRT60G	Glass	100	90	60	68	17.5	2.5	60	3.3	3.3
BRT100G	Glass	160	150	100	110	20	5	60	6.4	6.4

Technical Data

Part number	Static Load (lbs)	Dynamic Load (lbs)	Max Speed (rpm)	Weight (g)
Stainless Steel Balls				
BRT60E	180	56	250	111.9
BRT100E	248	94	250	251
Glass Balls				
BRT60G	180	56	250	98.3
BRT100G	248	94	250	231

xiros® Ball Bearings

B180 Material, Plastic Ball Transfer Unit



xiros® plastic ball transfer unit made of iglide® B180 for the lubricant-free transport of sensitive product. The support ball is mounted inside the housing on many smaller balls, in order to optimize the running behavior. The entire structure of the plastic ball caster consists of plastic components.



iglide® B180
POM Balls

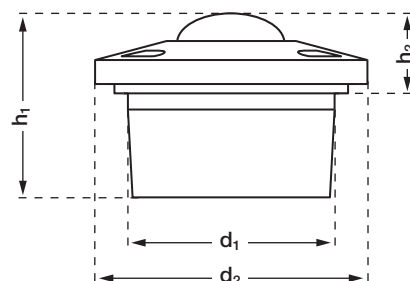
Special properties

- Lubrication- and maintenance-free
- Corrosion-resistant and non-magnetic
- Temperature resistant up to 176°F

Temperature range
-40°F to +176°F

Part Number Structure

BT 515 B POM

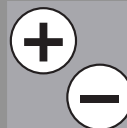


Dimensions and materials

Part number	Ball	d1	h2	d2	h1	Maximum Static Bearing Load (lbs)	Weight (g)
BT515BPOM	POM	24	9.5	31	21	18	8.7
BT522BPOM	POM	36	9.8	45	30	25	28.8

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CAD: www.igus.com/iglide-CAD
RoHS info: www.igus.com/RoHS



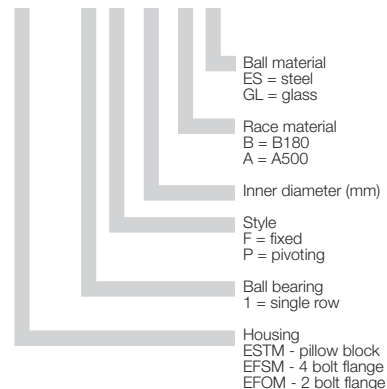


xiros® Ball Bearings B180 Material, ESTM Pillow Block, fixed Stainless Steel or Glass Balls, mm

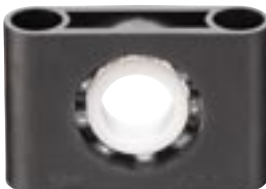
xiros® pillow block bearings with stainless steel balls are a combination of xiros® plastic ball bearings and igubal® housings

Part Number Structure

ESTM 1 F 06 B E



iglide® B180, igumid G
PA cage, Stainless Steel Balls



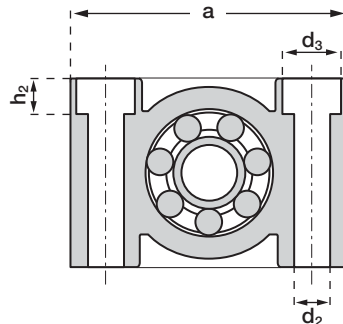
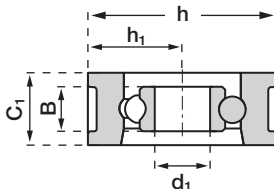
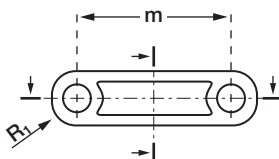
iglide® B180, igumid G
PA cage, Glass Balls

Special properties

- Totally corrosion resistance
- Lubrication- and maintenance-free
- Non-magnetic and washable
- Predictable lifetime
- Compact design
- Low weight
- Electrically insulating

Temperature range

- xiros® B180, -40°F to +176 °F
- xiros® A500, -40°F to +248 °F



Dimensions (mm)

Part No.*	Inner Ø d	Ø Bore d2	d3	h	h1	h2	a	m	C1	B	R1
Stainless Steel Balls											
ESTM1F06BE	6	5.5	5.5	22	11	—	36	26	10	6	5.0
ESTM1F10BE	10	6.6	10.6	34	17	6.4	50	37	13	8	6.5
ESTM1F20BE	20	9.0	14.0	48	24	8.06	72	54	18	12	9.0
Glass Balls											
ESTM1F06BG	6	5.5	5.5	22	11	—	36	26	10	6	5.0
ESTM1F10BG	10	6.6	10.6	34	17	6.4	50	37	13	8	6.5
ESTM1F20BG	20	9.0	14.0	48	24	8.06	72	54	18	12	9.0

Technical Data

Part No.*	Max. Static load axial (lbs)	Static load rating (lbs)	Dynamic load rating (lbs)	Max. Speed (rpm)	Weight (g)
Stainless Steel Balls					
ESTM1F06BE	21	11	16	2,600	7.7
ESTM1F10BE	64	19	27	1,900	20.2
ESTM1F20BE	90	47	66	1,150	54.1
Glass Balls					
ESTM1F06BG	21	11	16	2,600	6.7
ESTM1F10BG	64	19	27	1,900	18.2
ESTM1F20BG	90	47	66	1,150	47.7

*For temperatures up to +248°F order with A500 material.

For example:

ESTM1F08AE with stainless steel balls

ESTM1F08AG with glass balls

iglide® xiros

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xiros® Ball Bearings

B180 material, ESTM Pillow Block, pivoting

Stainless Steel or Glass Balls, mm



xiros® pillow block bearings with stainless steel balls are a combination of xiros® plastic ball bearings and igubal® housings. The pivoting option allows for the compensation of misalignments.



iglide® B180, igumid G
PA cage, Stainless Steel Balls



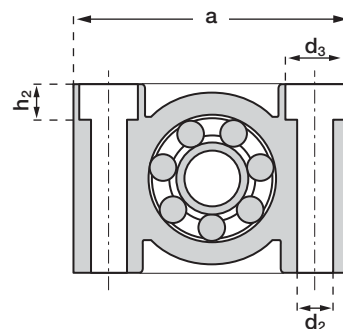
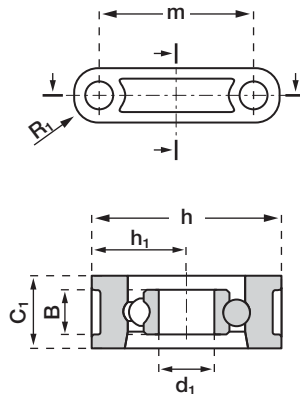
iglide® B180, igumid G
PA cage, Glass Balls

Special properties

- Totally corrosion resistance
- Lubrication- and maintenance-free
- Non-magnetic and washable
- Predictable lifetime
- Compact design
- Low weight
- Electrically insulating

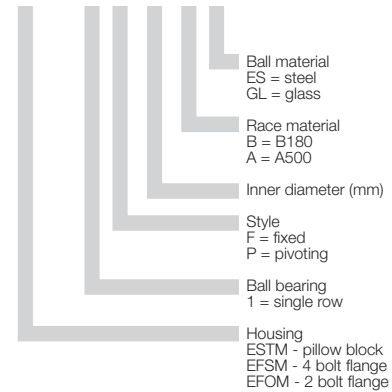
Temperature range

- xiros® B180, -40°F to +176 °F
- xiros® A500, -40°F to +248 °F



Part Number Structure

ESTM 1 F 06 B E



Dimensions (mm)

Part No.*	Inner Ø d	Ø Bore d2	d3	h	h1	h2	a	m	C1	B	R1
Stainless Steel Balls											
ESTM1P08BE	8	6.6	10.6	34	17	6.4	50	37	13	7	6.5
ESTM1P10BE	10	9.0	14.0	40	20	8.6	62	46	16	8	8.0
ESTM1P12BE	12	9.0	14.0	48	24	8.6	72	54	18	10	9.0
Glass Balls											
ESTM1P08BG	8	6.6	10.6	34	17	6.4	50	37	13	7	6.5
ESTM1P10BG	10	9.0	14.0	40	20	8.6	62	46	16	8	8.0
ESTM1P12BG	12	9.0	14.0	48	24	8.6	72	54	18	10	9.0

Technical Data

Part No.*	Max. Static load axial (lbs)	Static load rating (lbs)	Dynamic load rating (lbs)	Max. Speed (rpm)	Max. Pivoting Angle	Weight (g)
Stainless Steel Balls						
ESTM1P08BE	37	13	19	2,200	5°	19.6
ESTM1P10BE	64	19	27	1,900	5°	32.9
ESTM1P12BE	70	24	33	1,750	5°	54.8
Glass Balls						
ESTM1P08BG	37	13	19	2,200	5°	18.2
ESTM1P10BG	64	19	27	1,900	5°	30.3
ESTM1P12BG	70	24	33	1,750	5°	52.8

*For temperatures up to +248°F order with A500 material.

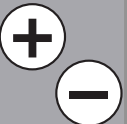
For example:

ESTM1P08AE with stainless steel balls

ESTM1P08AG with glass balls

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xiros® Ball Bearings EFSM 4-Bolt Flange, B180 Material Stainless Steel or Glass Balls, mm

xiros® flange bearings with stainless steel or glass balls are a combination of xiros® plastic ball bearings and igubal® housings. The new angle-compensating xiros® was developed for the maintenance-free application in conveyor belts, cam rollers and support housings. The light, corrosion-free and anti-magnetic bearing needs no oil or grease and compensates for misalignments caused by tiltings and/or tolerances



iglide® B180, igumid G
PA cage, Stainless Steel Balls
or Glass Balls

Temperature range

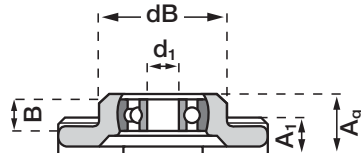
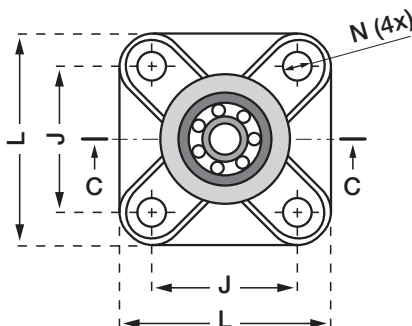
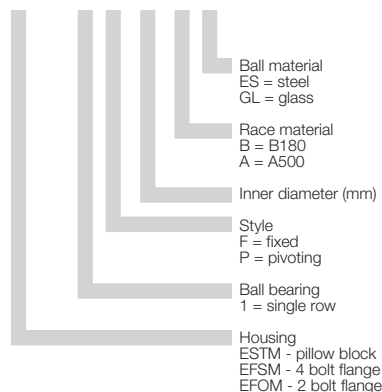
- xiros® B180, -40°F to +176 °F
- xiros® A500, -40°F to +248 °F

Special properties

- Compensation for misalignments
- Totally corrosion resistant
- Lubrication- and maintenance-free
- Non-magnetic and washable
- Predictable lifetime
- Compact design
- Low weight
- Electrically insulating

Part Number Structure

EFSM 1 F 06 B E



Dimensions (mm)

Part No.*	Inner Ø d1	dB	L	J	A1	Ag	N	Max. Pivoting angle
Stainless Steel Balls								
EFSM1P08BE	8	32.5	52	36	9	15.5	6.4	5°
EFSM1P10BE	10	40.0	65	45	11	18.8	8.4	5°
EFSM1P12BE	12	48.0	74	52	14	23.5	8.4	5°
Glass Balls								
EFSM1P08BG	8	32.5	52	36	9	15.5	6.4	5°
EFSM1P10BG	10	40.0	65	45	11	18.8	8.4	5°
EFSM1P12BG	12	48.0	74	52	14	23.5	8.4	5°

Technical Data

Part No.*	Max. Static load axial (lbs)	Static load rating (lbs)	Dynamic load rating (lbs)	Max. Speed (rpm)	Weight (g)
Stainless Steel Balls					
EFSM1P08BE	37	13	19	2,200	25.2
EFSM1P10BE	64	19	27	1,900	48.8
EFSM1P12BE	70	24	33	1,750	80.0
Glass Balls					
EFSM1P08BG	37	13	19	2,200	25.2
EFSM1P10BG	64	19	27	1,900	48.8
EFSM1P12BG	70	24	33	1,750	80.0

*For temperatures up to +248°F order with A500 material.

For example:

EFSM1P08AE with stainless steel balls

EFSM1P08AG with glass balls

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xiros® Ball Bearings EFOM 2-Bolt Flange B180 Material, Stainless Steel or Glass Balls, mm



xiros® flange bearings with stainless steel or glass balls are a combination of xiros® plastic ball bearings and igubal® housings. The new angle-compensating xiros® was developed for the maintenance-free application in conveyor belts, cam rollers and support housings. The light, corrosion-free and anti-magnetic bearing needs no oil or grease and compensates for misalignments caused by tiltings and/or tolerances



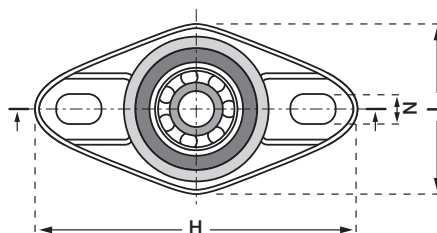
iglide® B180, igumid G
PA cage, Stainless Steel Balls
or Glass Balls

Temperature range

- xiros® B180, -40°F to +176 °F
- xiros® A500, up to +248 °F

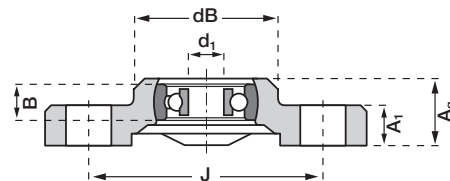
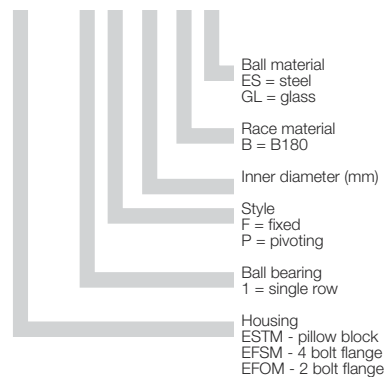
Special properties

- Compensation for misalignments
- Totally corrosion resistant
- Lubrication- and maintenance-free
- Non-magnetic and washable
- Predictable lifetime
- Compact design
- Low weight
- Electrically insulating



Part Number Structure

EFOM 1 F 06 B E



Dimensions (mm)

Part No.*	Inner Ø d1	dB	L	J	A1	Ag	N	Max. Pivoting angle
Stainless Steel Balls								
EFOM1P08BE	8	32	72.6	38	10	15,5	6.4 x 10.1	5°
EFOM1P10BE	10	40	89.0	47	11	18,8	8.4 x 12.5	5°
EFOM1P12BE	12	48.5	101.0	58.5	14	23,5	8.4 x 12.5	5°
Glass Balls								
EFOM1P08BG	8	32	72.6	38	10	15,5	6.4 x 10.1	5°
EFOM1P10BG	10	40	89.0	47	11	18,8	8.4 x 12.5	5°
EFOM1P12BG	12	48.5	101.0	58.5	14	23,5	8.4 x 12.5	5°

Technical Data

Part No.*	Max. static load axial (lbs)	Static load rating (lbs)	Dynamic load rating (lbs)	Maximum speed (rpm)
Stainless Steel Balls				
EFOM1P08BE	37	13	19	2,200
EFOM1P10BE	64	19	27	1,900
EFOM1P12BE	70	24	33	1,750
Glass Balls				
EFOM1P08BG	37	13	19	2,200
EFOM1P10BG	64	19	27	1,900
EFOM1P12BG	70	24	33	1,750

*For temperatures up to +248°F order with A500 material.

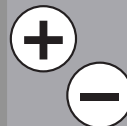
For example:

EFOM1P08AE with stainless steel balls

EFOM1P08AG with glass balls

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PDF: www.igus.com/iglide-pdfs
CAD: www.igus.com/iglide-CAD
RoHS info: www.igus.com/RoHS





iglide® A500

	Unit	Medium	Resistance
Density	1,28 g/cm ³	Alcohol	+
Color	brown	Hydrocarbons	+
Saturation with moisture absorption at 23°C/50% r.h.	0,3 % weight	Grease, oils without additives	+
Saturation with water	0,5% weight	Fuels	+
Modulus of elasticity	522,100	Diluted acids	+
Max. permissible surface pressure at 20 °C	20,300	Strong acids	+
Shore D hardness	83	Diluted alkalines	+
Specific volume resistance	> 10 ¹⁴ Ωcm	Strong alkalines	+
Surface resistivity	> 10 ¹³ Ω		

iglide® B180

	Unit	Medium	Resistance
Density	1,49 g/cm ³	Alcohol	+
Color	yellow	Hydrocarbons	+
Saturation with moisture absorption at 23°C/50% r.h.	0,3 % weight	Grease, oils without additives	+
Saturation with water	1,3 % weight	Fuels	+
Modulus of elasticity	348,090	Diluted acids	0 to -
Max. permissible surface pressure at 20 °C	10,587	Strong acids	-
Shore D hardness	74	Diluted alkalines	+
Specific volume resistance	> 10 ¹³ Ωcm	Strong alkalines	+ to 0
Surface resistivity	> 10 ¹² Ω		

iglide® C160

	Unit	Medium	Resistance
Density	1,11 g/cm ³	Alcohol	+
Color	white	Hydrocarbons	+ to 0
Saturation with moisture absorption at 23°C/50% r.h.	0,1 % weight	Grease, oils without additives	+
Saturation with water	0,2 % weight	Fuels	+ to 0
Modulus of elasticity	275,571	Diluted acids	+
Max. permissible surface pressure at 20 °C	5,076	Strong acids	+ to 0
Shore D hardness	non defined	Diluted alkalines	+
Specific volume resistance	> 10 ¹⁴ Ωcm	Strong alkalines	+
Surface resistivity	> 10 ¹⁴ Ω		

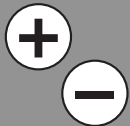
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	Unit	Medium	Resistance
Density	1,37 g/cm ³	Alcohol	+ to 0
Color	black	Hydrocarbons	+
Saturation with moisture absorption at 23°C/50% r.h.	1,4 % weight	Grease, oils without additives	+
Saturation with water	5,6 % weight	Fuels	+
Modulus of elasticity	1,131,294	Diluted acids	0
Max. permissible surface pressure at 20 °C	34,809	Strong acids	-
Shore D hardness	79	Diluted alkalines	+
Specific volume resistance	> 10 ¹¹ Ωcm	Strong alkalines	0
Surface resistivity	> 10 ¹¹ Ω		



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