4. xiros®...

Plastic ball bearings

...plastics

xiros® Ball bearings - Overview

xiros® radial deep-groove ball bearings – Standard material xirodur® B180

Standard
PA cage, Inch

➤ Page 704

Standard
PA cage, metric

➤ Page 706

FDA compliant
PE cage

➤ Page 706

Cost-effective
B180 cage

➤ Page 706

With shield
PA cage

➤ Page 706

xiros® radial deep-groove ball bearings – Further materials ...

High temperature and chemical resistant
xirodur® A500, PEEK cage

➤ Page 708

For low loads
xirodur® A500 PEEK cage
PAI balls

➤ Page 708

High temperatures
xirodur® A500,
PA cage

➤ Page 708

High chemical resistance
xirodur® C160
PP cage

➤ Page 710

Conductive
xirodur® F180
PA cage

➤ Page 712

Flange ball bearings

With single flange
xirodur® B180
PA cage

➤ Page 720

With double flange
xirodur® B180
PA cage

➤ Page 720

Conductive
xirodur® F180
PA cage

➤ Page 720

System-solution
Aluminum tube with flange ball bearing

➤ Page 722

End cap
xirodur® B180
PA cage

➤ Page 724

Axial ball bearings made from xirodur® B180

Standard

➤ Page 726

Double row

➤ Page 726

Thrust washer

➤ Page 727

Polymer ball transfer unit
POM balls

➤ Page 728

Axial polymer ball transfer unit
with spherical ball

➤ Page 728

xiros® combination with igubal®

Pillow block, fixed

➤ Page 730

Pillow block, pivoting

➤ Page 731

4 holes flange bearing, pivoting

➤ Page 732

2 holes flange bearing, pivoting

➤ Page 733

Thin ring bearing
B180 cage

➤ Page 706

... for special application areas

ESD protection & FDA compliant
xirodur® F180, PE cage

➤ Page 712

Detectable
xirodur® M180
xirodur® M180 cage

➤ Page 714

For tobacco industry
xirodur® T220,
PP cage

➤ Page 715

Quiet and for high speeds
xirodur® D180
PA cage

➤ Page 716

Higher temperatures
xirodur® G220
PP cage

➤ Page 717

Other designs

Spherical outer diameter
xirodur® B180

➤ Page 723

Spherical outer diameter
xirodur® M180

➤ Page 723

Double row
xirodur® B180

➤ Page 718

Multi axis
xirodur® B180
PP balls

➤ Page 719

Skate wheel
xirodur® B180
PA cage

➤ Page 725

Slewing ring bearing
glass/stainless steel balls

➤ Page 729

Slewing ring bearing, with gear teeth
Stainless steel balls

➤ Page 729

Material data, chemical resistance table and tolerance recommendation

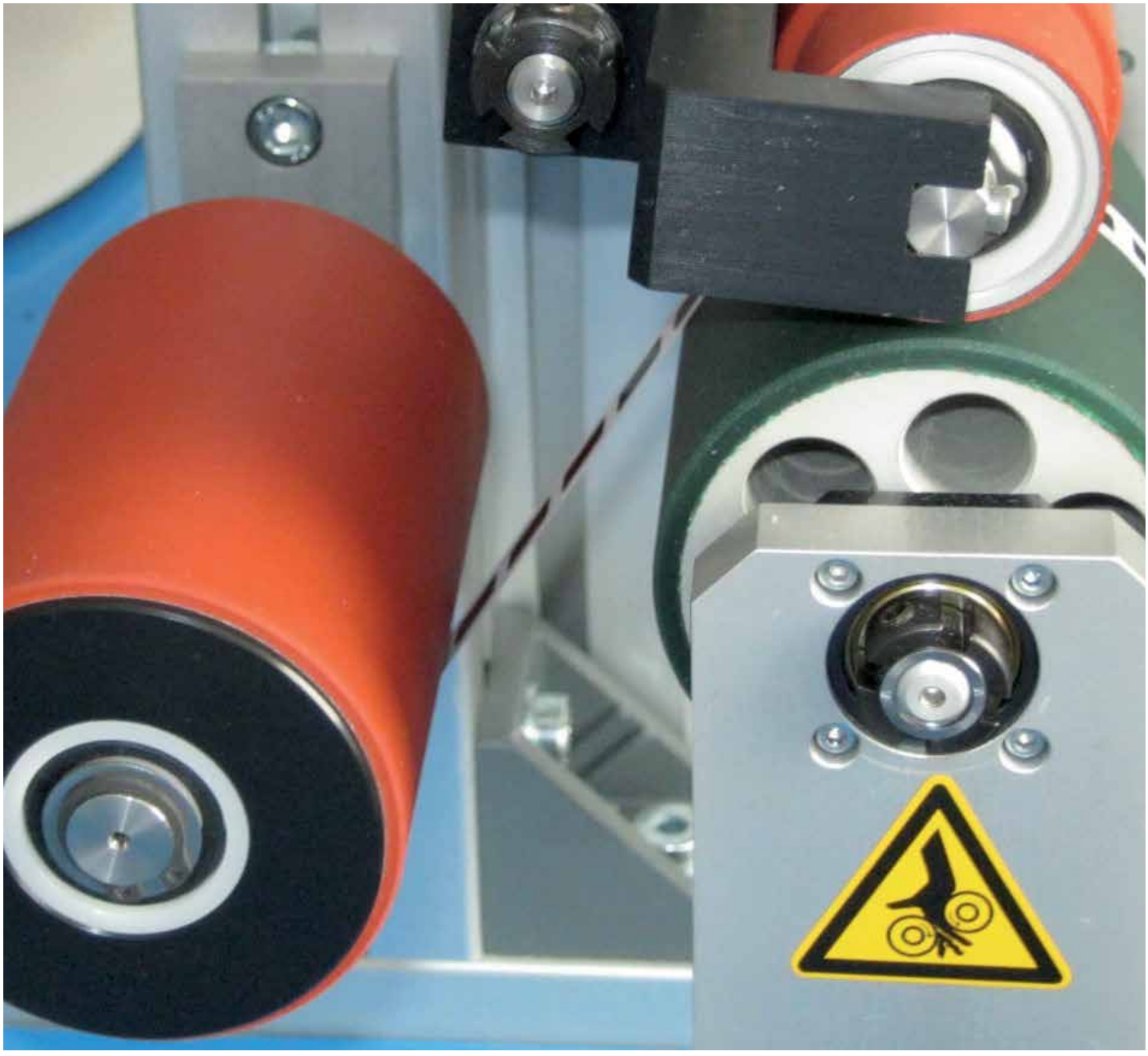
➤ Page 702

xiros® Ball bearings - Application examples

Other exciting applications ➤ **www.igus.com/xiros-applications**

GUIDE ROLLERS

The xiros® polymer ball bearings are 50% lower in price than the bearings previously used here



THERMOFORMING MACHINE
In this Thermoforming machine for coffee-cream portion packs, xiros® A500 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® polymer ball bearings are used here as wheels for the trolleys.

WET FILM THICKNESS GAUGE
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.

EXTRUDER ROLLER
After clarifying the corrosion characteristics of stainless steel, we were able to successfully conduct tests and installed our xiros® polymer ball bearings as drop-in replacements for the stainless steel bearings, which resulted in a significant increase of the service life.

THREE-SIDED TRIMER
The xirodur® B180 radial grooved ball bearing is used in a three sided trimmer. xiros® polymer ball bearings are used to transport books, brochures, magazines, or newspapers to subsequently cut these into the proper format.

xiros® Ball bearings - Advantages

Maintenance free, temperature resistant up to +302°F

Cost-effective
made from xirodur® B180 with B180 cage and glass or stainless steel balls
➤ Page 704

Chemical resistant
made from xirodur® A500 with PEEK-cage and glass or stainless steel balls
➤ Page 708

ESD protection & FDA compliant
made from xirodur® F180 with PE-cage and stainless steel balls
➤ Page 712

Detectable
made from xirodur® M180 with xirodur® M180 cage and stainless steel balls
➤ Page 714

Flange ball bearings
Standard (xirodur® B180), conductive (xirodur® F180)
➤ Page 720

Axial ball bearings
made from xirodur® B180, different types and designs
➤ Page 726

Polymer ball transfer units
for self-lubricating transport of sensitive products
➤ Page 728

xiros® in combination with igubal®
for maintenance free use in conveyor belts and cam rollers
➤ Page 730

Self-lubricating polymer ball bearings

xiros® polymer ball bearings have revolutionized the market. The maintenance free dry-running and the use of xirodur® high performance polymers successfully solve many applications where conventional metal ball bearings are not effective. xiros® ball bearings are the only plastic ball bearings in the world which use specially developed xirodur® tribo-polymers.

- Self-lubricating and maintenance free
- High corrosion resistance
- Free from metal (due to the use of glass and plastic balls), therefore non-magnetic
- For temperatures up to +302 °F
- High chemical resistance, suitable for wash-down
- Lightweight
- Electrically insulating (or conductive)
- FDA compliant (depending on material)
- Predictable service life

Typical application areas:

● Packaging ● Textile industry ● Test engineering and quality assurance ● Optical industry ● Model making ● Medical technology

Online product finder
➤ www.igus.com/xiros-finder

max. 302°F
min. -40°F

7 Materials
17 product types

Detailed technical data
➤ From page 702

Available from stock.
Detailed information about delivery time online.

xiros® Ball bearings - Product overview

xiros® radial deep groove ball bearings

- Self-lubricating and maintenance free
- Corrosion resistant
- Chemical resistance
- Predictable service life
- Lightweight

➤ **Page 704**

xiros® radial deep-groove ball bearings – further designs

- Self-lubricating and maintenance free
- Corrosion resistant
- Chemical resistance
- Lightweight

➤ **Page 720**

xiros® axial ball bearings

- For absorbing axial loads
- xirodur® B180 combined with glass or stainless steel balls
- Temperature resistant up to +176°F

➤ **Page 726**

xiros® in combination with igubal®

- A combination of xiros® polymer ball bearings and igubal® housings
- Fixed or pivoting versions
- 4 versions
- For maintenance free use in conveyor belts and cam rollers

➤ **Page 730**

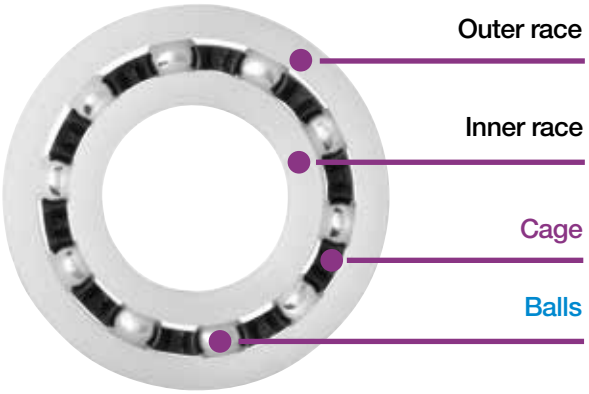
xiros® Ball bearings - Technical data

Design

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

The outer- and inner races

The suitability of a xiros® plastic ball bearings is largely determined by the materials of the two races. These are made from igus® triboplastics to maximize service life and minimize friction. You can currently choose from six different materials. They allow different values of application temperature, chemical resistance and price. The table with material data **(Page 702)** gives exact information.



The cage

The material of the ball bearing cage must fit well to the application. The various material options have quite different chemical and temperature resistance values. The cage materials are compatible with all the different race options within xiros®.

The balls

We offer stainless steel, glass or plastic balls. This produces a large difference in mass, which in turn affects smoothness, weight and chemical resistance. Steel balls (stainless steel) are cost-effective, chemical resistant, but with the most weight. Glass balls are used to give a metal free solution. They are also very resistant to chemicals, are non-magnetic and have an average weight. Plastic balls have significant advantages in weight, size and quiet running characteristics. Depending on the polymer used, plastic balls can have excellent chemical resistance.

Other designs

xiros® radial deep groove ball bearings

The other designs include convex rollers, which can run directly on a profile, casters, a multi-bearing for linear and radial movements, flange bearings designed, for example, for installation in tube ends and double-row bearings for absorbing higher forces.

Pillow block and flange bearings

This range is made up by combining xiros® plastic ball bearing with the igubal® pillow block and flanged housings, resulting in a higher flexibility in terms of installation of the bearings. The pre-finished bearing housing make it easy for the user to use these maintenance free components. Both flanged and pillow block are available as fixed or as pivoting design. 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. If necessary, the inner bearing can be pivoted in all directions. Possible misalignment of two bearing points lying together can thereby be compensated.

Development and tests

Through numerous tests the race materials were optimized. The polymers we have developed for use with ball bearings allow higher speeds, greater loads, and longer service life. But the development continues, we believe that plastic ball bearing technology will continue to advance, especially with our experience and development with tribological polymer materials. Challenge us, talk to us about your applications, tell us what you need from a plastic ball bearing. In the igus® test laboratory the life and wear of xiros® plastic ball bearings are 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.

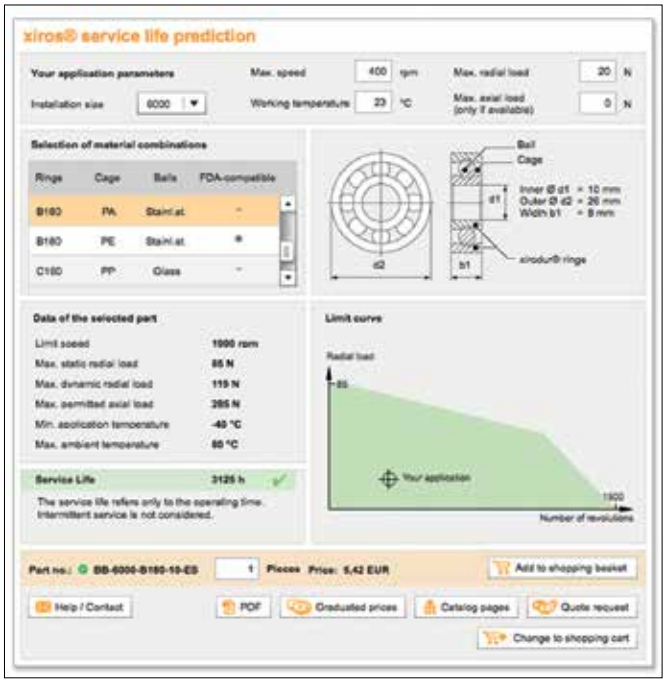
Predictability

As part of the development of xiros® plastic ball bearing tests are carried out continuously. The high number of test results make it very difficult to present this information in tabular form. It is for this reason that igus® has developed the online life calculator, which uses real test results to give an accurate calculation.

The predictability of xiros® plastic ball bearing is one of the most important advantages. Based on the results of many wear tests, the user can calculate the service life of the xiros® plastic ball bearing reliably and interpret the application.

www.igus.com/xiros-expert

Two of our test benches for xiros® plastic ball bearings at igus® bearings laboratory



xiros® Ball bearings - Technical data

Material properties and chemical resistance

					xirodur®					igumid
General properties	**Unit**	**B180**	**A500**	**C160**	**F180**	**M180**	**T220**	**D180**	**G220**	**G**
Density	**g/cm³**	1.41	1.28	1.11	1.41	1.63	1.28	1.24	1.14	1.37
Color		white	brown	opaque	black	blue	beige	blue	silver	black
Max. moisture absorption at +73 °F/50 % r.h.	**% weight**	0.2	0.3	0.1	0.2	0.2	0.3	0.5	2.1	1.4
Max. water absorption	**% weight**	0.7	0.5	0.2	0.7	0.6	0.5	1.4	8.9	5.6
Mechanical properties										
Modulus of elasticity	**psi**	362,594	522,135	275,570	362,594	362,594	261,067	18,854	435,113	1,131,294
Tensile strength at +68°F	**psi**	68	140	35	68	68	65	n. v.	n. v.	240
Shore-D Hardness		77	83	67	77	77	76	51	n. v.	79
Electrical properties										
Specific volume resistance[1]	**Ωcm**	$> 10^{14}$	$> 10^{14}$	$> 10^{14}$	$> 10^{7}$–10^{9} [2]	$> 10^{9}$	$> 10^{10}$	$> 10^{14}$	$> 10^{13}$	$> 10^{11}$
Surface resistance[1]	**Ω**	$> 10^{14}$	$> 10^{13}$	$> 10^{14}$	$> 10^{7}$–10^{9} [2]	$> 10^{9}$	$> 10^{10}$	$> 10^{14}$	$> 10^{12}$	$> 10^{11}$
Thermal properties of xiros® polymer ball bearings										
Max. long term application temperature	**°F**	+176	+302	+158	+176	+176	+212	+176	+212	+248
Min. application temperatures (in combination with cage material)	**°F**	–40	–148 (PEEK) –40 (PA)	0	–40	–40	–40	–58	–40	–40

[1] Only valid for xirodur® F180: the good conductivity of this material favours, under certain conditions, the corrosion generation on metallic parts.
[2] Depending on the geometry

Table 01: Material data

	xirodur®							igumid
Medium	**B180**	**A500**	**C160**	**F180**	**M180**	**T220**	**D180**	**G**
Alcohols	+	+	+	+	+	+	+ to 0	+
Diluted alkalines	+	+	+	+	+	+	+ to 0	0 to –
Diluted acids	0 to –	+	+	0 to –	0 to –	0 to –	+ to 0	+
Fuels	+	+	+ to 0	+	+	+	+	+
Greases, oils without additives	+	+	+	+	+	+	+	+
Hydrocarbons	+	+	+ to 0	+	+	+	+	+
Strong alkalines	+ to 0	+	+	+ to 0	+ to 0	+ to 0	+ to 0	–
Strong acids	–	+	+ to 0	–	–	–	0	+ to 0

+ resistant 0 conditionally resistant – not resistant

Chemical resistance of xiros® materials

Recommendation of tolerance for hole and shaft

Fitting	Housing bore	Shaft
Standard: transition fit	H7	h6

For further questions about the dimensioning of the bore and the shaft please contact us.

xiros® Ball bearings - Selection guide

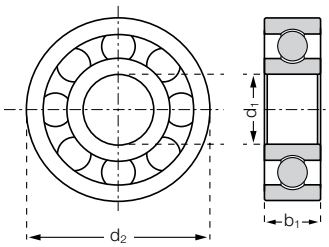
	Standard material					High temperature					Chemical resistant		Conductive with ESD protection		Detectable	For the tobacco industry
xirodur® material	B180					A500					C160		F180		M180	T220
Cage material	PA		B180		PE	PA		PEEK			PP		PA	PE	M180	PP
Ball material	ES	GL	ES	GL	ES	ES	GL	ES	GL	PAI	ES	GL	ES	ES	ES	ES
Dirt resistant	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Chemical resistant			●	●				●	●	●	●	●				
For high temperatures						●	●	●	●	●						
Smooth running	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Low moisture absorption	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Contact with food			●		●			●						●	●	
Seawater resistant								●	●		●	●				
Cost-effective	●		●													
Conductive + ESD protection													●	●		
Metal free		●		●			●		●	●		●				

Radial deep groove ball bearings - Product range

Races made from xirodur® B180 - Inch

PA cage,
stainless steel balls

PA cage,
glass balls



Temperature range
-40°F to +176°F

Part No.	Inner Ø d1	Outer Ø d2	Width b1	Cage/ball material combination PA/E	PA/G
BI062006B1	0.1875	0.6250	0.1875	●	●
BI082006B1E	0.2500	0.6250	0.1875	●	
BI082407B1	0.2500	0.7500	0.2188	●	●
BI122810B1E	0.3750	0.8750	0.3125	●	
BI123612B1	0.3750	1.1250	0.3750	●	●
BI163612B1	0.5000	2.2500	0.3750	●	●
BI204412B1	0.6250	1.3750	0.3750	●	●
BI245216B1	0.7500	1.6250	0.5000	●	●
BI326416B1	1.0000	2.0000	0.5000	●	●

Order key

Type		Size		xirodur®	Options	
B	I	0620	06	B	1	E
Ball bearing	Inch	Size	Width of bearing (Based on 1/32")	Race material B180	Cage material	Ball material

Options
Cage material
1 = PA
Ball material
E = stainless steel
G = glass

Size	Maximum static bearing load axial	Bearing load		Maximum speed	Weight	
		static	dynamic		E	G
	[lbs]	[lbs]	[lbs]	[rpm]	[g]	[g]
0620	7	10	11	3700	1.6	1.0
0820	9	10.5	11.5	3500	1.3	–
0824	11	9	16.5	3200	1.6	1.0
1228	12	9	20	2200	3.9	–
1236	14	25	27	1900	4.9	4.9
1636	16.5	13	33.5	2000	7.6	5.2
2044	17.5	11	43	1600	11	7.9
2452	18	9	65	1400	20.1	13.6
3264	26	29	80	1050	27.3	27.3

Radial deep groove ball bearings - Product range

Races made from xirodur® B180

PA cage,
stainless steel balls

PA cage,
glass balls

PA cage, with shield, stainless steel balls or glass balls

PE cage,
stainless steel balls

xirodur® B180 cage,
stainless steel balls

xirodur® B180 cage,
glass balls

Thin ring bearing, xirodur® B180 cage, stainless steel balls

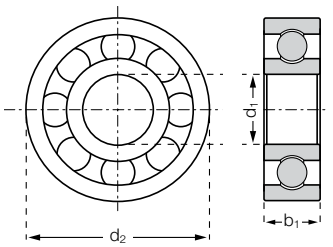
Special designs made from xirodur® B180
➤ Page 718

Temperature range
-40°F to +176°F

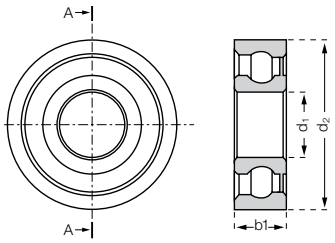
Dimensions [mm]

Part No. Without shield	Part No. With shield	Inner Ø	Outer Ø	Width	Cage/ball material combination				
	PA/E/G	d1	d2	b1	PA/G	PA/E	PE/E	B180/G	B180/E
B623B	BC623B	3	10	4	●	●	●		
B624B		4	13	5	●	●	●		
B625B		5	16	5	●	●	●	●	●
B626B	BC626B	6	19	6	●	●	●	●	●
B629B1E		9	26	8		●			
B608B	BC608B	8	22	7	●	●	●	●	●
B688B		8	16	5	●	●			
B6800B3E		10	19	5					●
B6000B	BC6000B	10	26	8	●	●	●	●	●
B6200B		10	30	9	●	●			
B6801B3E		12	21	5					●
B6001B	BC6001B	12	28	8	●	●	●	●	●
B6201B		12	32	10	●	●			
B6802B3E		15	24	5					●
B6002B		15	32	9	●	●	●		
B6202B	BC6202B	15	35	11	●	●			
B6003B	BC6003B	17	35	10	●	●	●	●	●
B6203B		17	40	12	●	●			
B6004B	BC6004B	20	42	12	●	●	●	●	●
B6204B		20	47	14	●	●			
B6005B	BC6005B	25	47	12	●	●	●	●	●
B6205B		25	52	15	●	●			
B6006B		30	55	13	●	●			
B6007B		35	62	14	●	●			
B6008B		40	68	15	●	●			
B6009B		45	75	16	●	●			
B6010B		50	80	16	●	●			
B6011B		55	90	18	●	●			
B6012B		60	95	18	●	●			

Reliable and cost-effective



Without shield



With shield

Order key

Type	option	Size	xirodur®	Options	
B	C	623	B	1	E
Ball bearing	With cover	Dimensions acc. to DIN 625-1	Race material B180	Cage material	Ball material

Options
Cover
C = with cover
Cage material
1 = PA
3 = xirodur® B180
5 = PE
Ball material
E = stainless steel
G = glass

The order key shows part with available cover option “BC Without the cover option omit “C”. Example: B623B1E

Technical data

Size	Maximum static bearing load axial	Bearing load		Maximum speed	Weight		With shield	
		static	dynamic		E	G	E	G
	[lbs]	[lbs]	[lbs]	[rpm]	[g]	[g]	[g]	[g]
623	7	6	8	4,500	0.4	0.3	0.4	0.4
624	9	7	10	4,000	1.0	0.9	–	–
625	17	9	12	3,700	1.6	1.0	–	–
626	21	9	13	3,200	2.2	1.7	2.5	1.8
629	9	25	29	2,200	6.1	–	–	–
608	37	13	19	2,200	3.9	2.6	4.0	2.7
688	30	11	15	1,760	3.1	2.1	–	–
6800	13	9	11	3,600	1.6	–	–	–
6000	64	29	31	2,200	6.1	4.0	6.3	4.1
6200	64	19	27	1,900	7.8	5.2	–	–
6801	13	13	17	3,250	1.9	–	–	–
6001	71	31	38	2,000	6.9	4.5	7.1	–
6201	71	24	33	1,750	8.8	5.9	–	–
6802	13	18	21	2,900	2.5	–	–	–
6002	76	34	44	1,800	8.9	6.2	–	–
6202	76	33	44	1,600	11.6	8.2	12.8	8.9
6003	81	54	74	1,600	11.1	7.9	11.5	8.4
6203	81	40	56	1,400	14.4	10.2	–	–
6004	90	56	72	1,400	20.2	13.6	20.8	14.2
6204	90	47	66	1,150	26.2	17.7	–	–
6005	117	63	85	1,200	23.9	16.7	24.7	17.5
6205	117	54	81	1,050	35.2	24.6	–	–
6006	144	85	112	1,000	35.0	24.2	–	–
6007	162	103	135	850	47.0	31.3	–	–
6008	180	117	153	750	56.3	39.1	–	–
6009	202	135	180	650	71.5	48.6	–	–
6010	216	153	202	600	83.1	56.4	–	–
6011	225	162	214	550	125.2	84.4	–	–
6012	247	180	225	500	129.6	85.6	–	–

Radial deep groove ball bearings - Product range

Races made from xirodur® A500, temperatures up to 302°F

PEEK cage,
stainless steel balls
Temperature range
-40°F to +302°F

PEEK cage,
glass balls
Temperature range
-148°F to +302°F

PEEK cage,
PAI balls
Temperature range
-148°F to +302°F

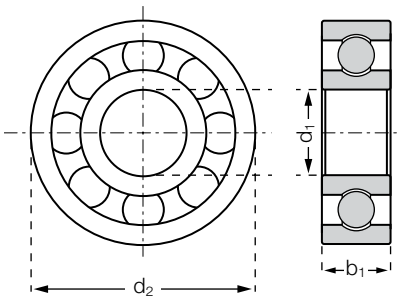
PA cage,
stainless steel balls
Temperature range
-40°F to +302°F

PA cage,
glass balls
Temperature range
-40°F to +302°F

Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Cage/ball material combination				
	d1	d2	b1	PEEK/E	PEEK/G	PEEK/P	PA/E	PA/G
B623A	3	10	4	●	●		●	●
B624A	4	13	5	●	●		●	●
B626A	6	19	6	●	●	●	●	●
B608A	8	22	7	●	●	●	●	●
B6000A	10	26	8	●	●	●	●	●
B6002A	15	32	9	●	●	●	●	●
B6004A	20	42	12	●	●	●	●	●

Chemical resistant, for high temperatures



Order key

Type	Size	xirodur®	Options	
B	623	A	1	E
Ball bearing	Dimensions acc. to DIN 625-1	Race material A500	Cage material	Ball material

Options
Cage material
1 = PA
7 = PEEK
Ball material
E = stainless steel
G = glass
P = polyamide-imide

Technical data

Size	Maximum static bearing load axial		Bearing load				Maximum speed	Weight				
		PEEK/P	static	dynamic	static	dynamic		PEEK/E	PEEK/G	PEEK/P	PA/E	PA/G
					PEEK/P							
	[lbs]	[lbs]	[lbs]	[lbs]	[lbs]	[lbs]	[rpm]	[g]	[g]	[g]	[g]	[g]
623	7	–	7	9	–	–	5,000	0.4	0.3	–	0.4	0.3
624	13	–	9	12	–	–	4,550	1.0	0.9	–	1.9	0.9
626	28	7	13	18	3	4	3,400	2.3	1.6	1.4	2.3	1.6
608	49	12	16	22	4	6	2,700	3.7	2.4	2.2	3.7	2.4
6000	85	21	23	31	6	8	2,100	6.0	3.8	3.4	6.0	6.0
6002	99	27	36	38	7	9	1,900	9.1	5.2	5.6	9.1	9.1
6004	146	36	56	72	14	20	1,700	19.7	13.2	11.7	19.7	19.4

Order example:
B623A1E = ball bearing with PA cage and stainless steel ball

Radial deep groove ball bearings - Product range

Races made from xirodur® C160, temperatures up to 176°F

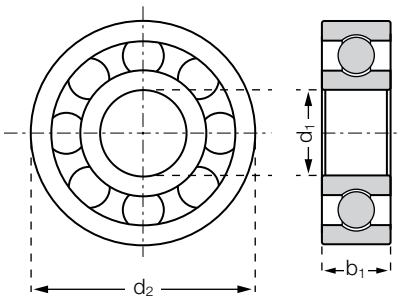
PP cage,
stainless steel balls
Temperature range
32°F to +176°F

PP cage,
glass balls
Temperature range
32°F to +176°F

Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Cage/ball material combination	
	d1	d2		PP/ES	PP/GL
B623C2 ☐	3	10	4	●	●
B626C2 ☐	6	19	6	●	●
B608C2 ☐	8	22	7	●	●
B6000C2 ☐	10	26	8	●	●
B6002C2 ☐	15	32	9	●	●
B6003C2 ☐	17	35	10	●	●

High media resistance



Order key

Type	Size	xirodur®	Options	
B	623	C	2	E
Ball bearing	Dimensions acc. to DIN 625-1	Race material C160	Cage material	Ball material

Options
Cage material
2 = PP
Ball material
E = stainless steel
G = glass

Technical data

Size	Maximum static bearing load axial	Bearing load		Maximum speed	Weight	
		static	dynanic		PP/ES	PP/GL
	[lbs]	[lbs]	[lbs]	[rpm]	[g]	[g]
623	6	4	6	4,000	0.4	0.3
626	18	7	9	2,600	2.1	1.4
608	33	10	13	2,200	3.4	2.2
6000	56	15	21	1,900	5.6	3.5
6002	65	21	27	1,600	8.1	4.2
6003	72	25	36	1,400	9.3	5.1

Order example:
B623C2E = ball bearing with PP cage and stainless steel balls

Radial deep groove ball bearings - Product range

Races made from xirodur® F180, temperatures up to 176°F

PA cage,
stainless steel balls
Temperature range
-40°F to +176°F

PE cage,
stainless steel balls
Temperature range
-40°F to +176°F

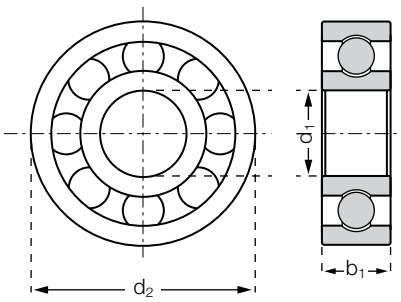
ESD protection

Special designs made from xirodur® F180 ➤ Page 720

Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Cage/ball material combination	
	d1	d2	b1	PA/E	PE/E
B623F ☐ E	3	10	4	●	●
B624F ☐ E	4	13	5	●	●
B625F ☐ E	5	16	5	●	●
B626F ☐ E	6	19	6	●	●
B608F ☐ E	8	22	7	●	●
B6000F ☐ E	10	26	8	●	●
B6001F ☐ E	12	28	8	●	●
B6002F ☐ E	15	32	9	●	●
B6003F ☐ E	17	35	10	●	●
B6004F ☐ E	20	42	12	●	●

Conductive (with ESD protection)



Order key

Type	Size	xirodur®	Options	
B	623	F	1	E
Ball bearing	Dimensions acc. to DIN 625-1	Race material F180	Cage material	Ball material

Options
Cage material
1 = PA
5 = PE
Ball material
E = stainless steel

Technical data

Size	Maximum static bearing load axial	Bearing load		Maximum speed	Weight	
		static	dynamic		PA/E	PE/E
	[lbs]	[lbs]	[lbs]	[rpm]	[g]	[g]
623	7	6	8	4,400	0.4	0.4
624	9	7	10	3,900	1.0	1.0
625	17	9	12	3,600	1.6	1.6
626	21	9	13	3,200	2.1	2.1
608	37	24	34	2,500	3.8	3.8
6000	64	28	31	2,100	5.9	5.9
6001	71	31	38	2,000	6.9	6.9
6002	76	33	44	1,800	8.9	8.9
6003	81	53	74	1,600	10.7	10.7
6004	90	55	72	1,400	13.4	13.4

Order example:
B623F1E = ball bearing with PA cage and stainless steel balls

Radial deep groove ball bearings - Product range

Races made from xirodur® M180, detectable

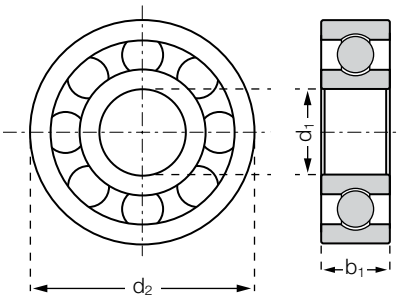
xirodur® M180 cage,
stainless steel balls

Order key

Type	Size	xirodur®	Options	
B	6000	M	4	E
Ball bearing	Dimensions acc. to DIN 625-1	Race material M180	Cage material	Ball material

Options
Cage material
4 = xirodur® M180
Ball material
E = stainless steel

Special designs made from xirodur® M180
➤ Page 723



Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Cage/ball material combination
	d1	d2	b1	M180/E
B6000M4E	10	26	8	●
B6003M4E	17	35	10	●

Technical data

Size	Maximum static bearing load axial	Bearing load		Maximum speed	Weight
		static	dynamic		PP/E
	[lbs]	[lbs]	[lbs]	[rpm]	[g]
6000	64	19	27	1,900	6.1
6003	81	40	56	1,400	11.1

Order example:
B6000M4E = ball bearing with M180 cage and stainless steel balls

Radial deep groove ball bearings - Product range

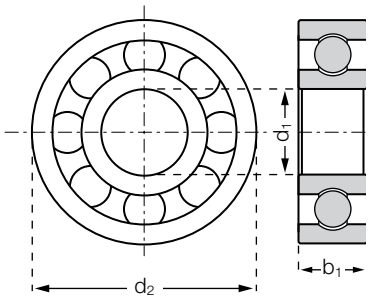
Races made from xirodur® T220, no carcinogenic additives

PP cage,
stainless steel balls

Order key

Type	Size	xirodur®	Options	
B	6002	T	2	E
Ball bearing	Dimensions acc. to DIN 625-1	Race material T220	Cage material	Ball material

Options
Cage material
2 = PP
Ball material
E = stainless steel



Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Cage/ball material combination
	d1	d2	b1	T220/E
B6002T2E	15	32	9	●

Technical data

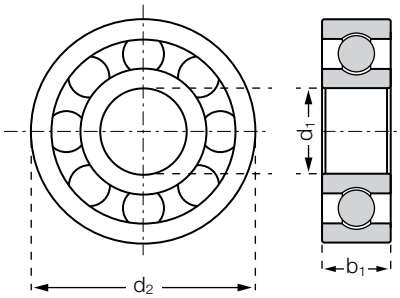
Size	Maximum static bearing load axial	Bearing load		Maximum speed	Weight
		static	dynamic		PP/E
	[lbs]	[lbs]	[lbs]	[rpm]	[g]
6002	76	33	44	1,600	8.9

Order example:
B6002T2E = ball bearing with PP cage and stainless steel balls

Plastic ball bearings - Product range

Race made from xirodur® D180, for speeds up to 5,000 rpm

PA cage,
stainless steel balls



Order key

Type	Size	xirodur®	Options	
B	623	D	1	E
Ball bearing	Dimensions acc. to DIN 625-1	Race material B180	Cage material	Ball material

Options
Cage material
1 = PA
Ball material
E = stainless steel

Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Cage/ball material combination
	d1	d2	b1	PA/E
B623D1E	3	10	4	●
B626D1E	6	19	6	●
B608D1E	8	22	7	●
B6000D1E	10	26	8	●
B6001D1E	12	28	8	●
B6002D1E	15	34	9	●

Technical data

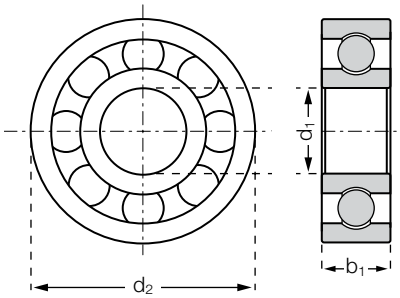
Size	Maximum static bearing load axial	Bearing load		Maximum speed	Weight
		static	dynamic		PA/E
	[lbs]	[lbs]	[lbs]	[rpm]	[g]
623	.22	.45	3	5,000	0.4
626	1	3	7	4,500	2.0
608	1.5	4	9	4,300	3.7
6000	2	6	8	4,200	5.7
6001	3	7	11	4,000	6.6
6002	3	10	11	3,870	8.5

Order example:
B623D1E = ball bearing with PA cage and stainless steel balls

Plastic ball bearings - Product range

Races made from xirodur® G220, temperatures up to 212°F

PA cage,
stainless steel balls



Order key

Type	Size	xirodur®	Options	
B	6000	G	1	E
Ball bearing	Dimensions acc. to DIN 625-1	Race material G220	Cage material	Ball material

Options
Cage material
1 = PA
Ball material
E = stainless steel

Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Cage/ball material combination
	d1	d2	b1	G220/E
B6000G1E	15	32	9	●

Technical data

Size	Maximum static bearing load axial	Bearing load		Maximum speed	Weight
		static	dynamic		PP/E
	[lbs]	[lbs]	[lbs]	[rpm]	[g]
6000	58	25	31	2,000	6.1

Order example:
B6000G1E = ball bearing with PA cage and stainless steel balls

Double row ball bearings - Product range

Races made from xirodur® B180

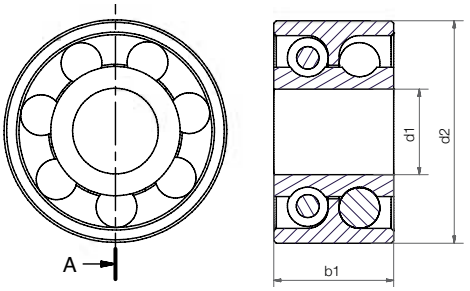
PA cage,
stainless steel balls
or glass balls

- Higher loads
- Less expensive than two comparable bearings

Order key

Type	Size	xirodur®	Options		
B	6000	B	1	E	DR
Ball bearing	Dimensions acc. to DIN 625-1	Race material M180	Cage material	Ball material	Double row

Options
Cage material
4 = xirodur® M180
Ball material
E = stainless steel



Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Cage/ball material combination	
	d1	d2	b1	PA/E	PA/G
B6000B1EDR	10	26	14	●	●
B6004B1EDR	20	42	20	●	●

Technical data

Size	Maximum static bearing load axial	Bearing load		Maximum speed	Weight	
		static	dynamic		E	G
	[lbs]	[lbs]	[lbs]	[rpm]	[g]	[g]
6000	180	36	51	850	11.0	7.0
6004	247	79	119	510	36.0	29.0

Order example:
B6000B1EDR = double row ball bearing with PA cage and stainless steel balls

Multi-axis plastic bearing - Product range

Races made from xirodur® B180

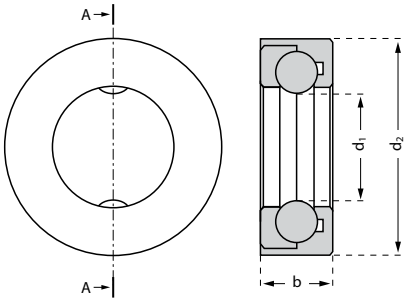
PP ball

- For rotary and linear motions

Order key

Type		Dimensions			xirodur®	Ball
B	MA	16	33	11	B	P
Ball bearing	Multi-axis bearings	Inner-Ø (d1)	Outer-Ø (d2)	Width (b)	Housing material	Ball material

Options
Housing material
B = xirodur® B180
Ball material
P = PP



Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Cage/ball material combination
	d1	d2	b1	B180/P
BMA163311BP	16.3	33	11	●

Technical data

Type	Bearing load, radial		Maximum speed	Weight
	static	dynamic		P
	[N]	[N]	[rpm]	[g]
BMA	12	16	500	6.9

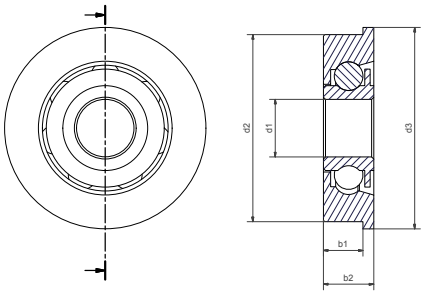
Order example:
BMA163311BP = multi-axis ball bearing with B180 cage and PP balls

Flange bearings - Product range

Races made from xirodur® B180 or xirodur® F180

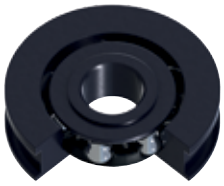
xirodur® B180 races
PA cage, stainless steel balls or glass balls, double shield

xirodur® B180 races
PA cage, stainless steel balls or glass balls, double flange and shield

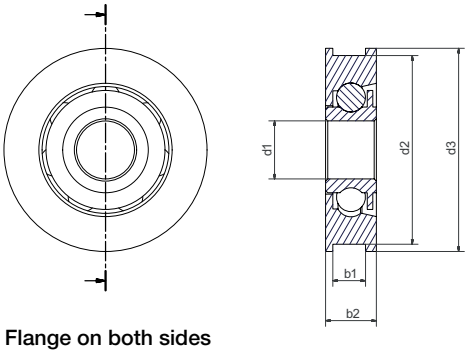


Single flange

xirodur® F180 races
PA cage, stainless steel balls, double shield



xirodur® F180 races
PA cage, stainless steel balls or glass balls, double flange and shield



Flange on both sides

Dimensions [mm]

Part No.	Inner Ø	Outer Ø		Width		Cage/ball material combination			
						B180			F180
	d1	d2	d3	b1	b2	PA/E	PA/G	B180/E	PA/E
BC608F □ 1 □	8	26	28	5.5	7	●	●		●
BC608FF □ □ □	8	26	28	4	7	●	●		●
B608F28B1E	8	28	30	5.5	7	●			
B6000F28B1E	10	28	30	7	9	●		●	
B6001F28B1E	12	28	30	7	9	●			
B6000F35B1E	10	35	38	7	9	●			
B6001F35B1E	12	35	38	7	9	●			
B6002F35B1E	15	35	38	7	9	●			
B6003F35B1E	17	35	38	8	10	●		●	

Order example:
B6000F28B1E = B180 flange bearing with PA cage and stainless steel balls

No axial securing

Order key

Type	option	Size	Flange	dimension	Options		
B	C	6000	F	35	B	1	E
Ball bearing	With cover	Dimensions acc. to DIN 625-1	F = Flange on one side FF = Flange on both sides	d2	Race material B180	Cage material	ball material

Options
Cover
C = with cover
Flange
F = flange one side
FF = flange both sides
Cage material
1 = PA
3 = xirodur® B180
Ball material
E = stainless steel
G = glass

Technical data

Size	Flange on both sides	Maximum static bearing load axial	Bearing load		Maximum speed	Weight			
			static	dynamic		PA/E	B180 PA/G	B180/E	F180 PA/E
		[lbs]	[lbs]	[lbs]	[rpm]	[g]	[g]	[g]	[g]
608		37	18	19	2,500	32.5	25.9	–	5.9
608	●	37	18	19	2,500	6.1	4.8	–	6.1
6000		64	19	27	1,900	9.6	–	9.6	–
6001		71	24	33	1,750	10.8	–	–	–
6002		76	33	44	1,600	12.1	–	–	–
6003		81	54	74	1,600	13.4	–	13.4	–

Flange bearings - Product range

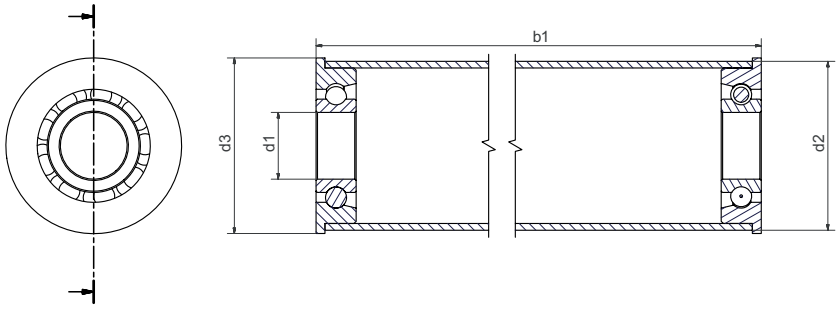
xiros® system-solution - aluminum tube with flange bearing

Aluminum tube with xirodur® B180 flange ball bearing,
available lengths: 25 - 1,500 mm

Order key

Type		Dimensions		xirodur®	Options		Length
B	KA	30	10	B	1	E	☐
Ball bearing	Kit assembly	Outer-Ø (d2)	Inner-Ø (d1)	Race material	Cage material	Ball material	Length 25 - 1,500 mm

Options
Cage material
B = xirodur® B180
F = xirodur® F180
Cage material
1 = PA
3 = xirodur® B180
Ball material
E = stainless steel
G = glass



Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Flange Ø	Length
	d1	d2	d3	b1
BKA3008B1E ☐	8	30	29.9	25 – 1,500
BKA3010B1E ☐	10	30	29.9	25 – 1,500
BKA3012B1E ☐	12	30	29.9	25 – 1,500
BKA3810B1E ☐	10	38	37.9	25 – 1,500
BKA3812B1E ☐	12	38	37.9	25 – 1,500
BKA3815B1E ☐	15	38	37.9	25 – 1,500
BKA3817B1E ☐	17	38	37.9	25 – 1,500

Order example:
BKA3010B1E, L=500 mm = aluminum tube with 2 flange ball bearings, PA cage and stainless steel balls, total length 500 mm

Spherical outer diameter - Product range

Races made from xirodur® B180 or M180

xirodur® B180 races
PA cage,
stainless steel balls

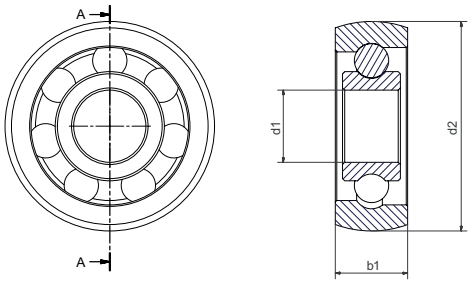
xirodur® B180 races
PA cage,
glass balls

xirodur® M180 races
xirodur® M180 cage,
stainless steel balls

Order key

Type			xirodur®	Options	
B	SO	608	B	1	E
Ball bearing	Spherical outer Ø	Dimensions acc. to DIN 625-1	Race material	Cage material	Ball material

Options:
Race material
B = xirodur® B180
M = xirodur® M180
Cage material
1 = PA
4 = xirodur® M180
Ball material
E = stainless steel
G = glass



- Use in skewed/curved/twisted profiles
- Prevents edge stress

Technical data

Size	Maximum static bearing load axial	Bearing load		Maximum speed	Weight		
		static	dynamic		PA/E	PA/G	M180/E
	[lbs]	[lbs]	[lbs]	[rpm]	[g]	[g]	[g]
608	37	13	19	2,200	4.8	3.5	–
6000	64	19	27	1,900	7.9	5.8	6.1
6001	71	24	33	1,750	13.5	11.1	–

Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Cage/ball material combination		
	d1	d2	b1	PA/ES	PA/GL	M180/ES
BSO608 ☐ ☐ ☐	8	24	8	●	●	
BSO6000 ☐ ☐ ☐	10	28.96	10	●	●	●
BSO6001 ☐ ☐ ☐	12	35.56	12	●	●	

Order example:
BSO608B1E = ball bearing made from xirodur® B180, spherical outer diameter, PA cage and stainless steel balls

End caps - Product range

Races made from xirodur® B180

PA cage,
stainless steel balls
or glass balls

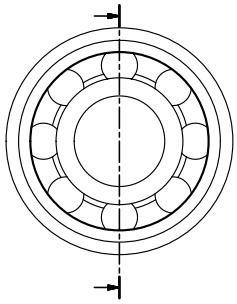
PA cage,
stainless steel balls
hex socket contour

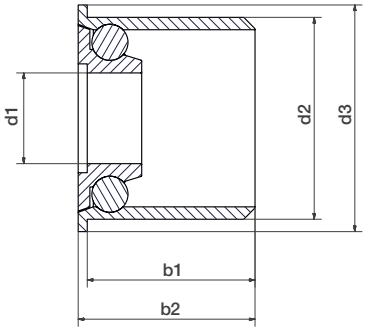
- Fast and easy retrofits in many standard tubes
- Good axial stability

Order key

Type				xirodur®	Options	
B	EC	6204	44.5	B	1	E
Ball bearing	End cap	Dimensions acc. to DIN 625-1	Outer-Ø (d2)	Race material B180	Cage material	Ball material

Options
Cage material
1 = PA
3 = xirodur® B180
5 = PE
Ball material
E = stainless steel
G = glass





Dimensions [mm]

Part No.	Inner Ø	Outer Ø		Width		Cage/ball material combination	
	d1	d2	d3	b1	b2	PA/G	PA/E
BEC620444.5B1 ☐	20	44.5	50	37	39	●	●
BEC6204M8B1E	M8	44.5	50	38.5	39		●

Technical data

Size	Maximum static bearing load axial	Bearing load		Maximum speed	Weight	
		static	dynamic		PA/ES	PA/GL
	[lbs]	[lbs]	[lbs]	[rpm]	[g]	[g]
6204	117	55	66	1,800	32.5	25.9
6204	117	55	66	1,800	33.0	–

Order example:
BB-6204EC44.5-B180-10-ES = end cap made from xirodur® B180, with PA cage and stainless steel balls

Skate wheel - Product range

Races made from xirodur® B180

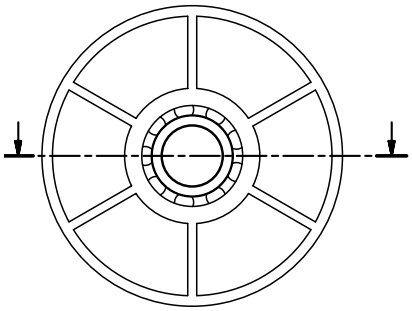
PA cage,
stainless steel balls

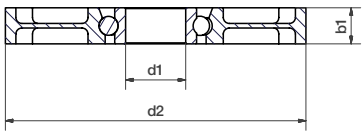
PA cage,
glass balls

Order key

Type				xirodur®	Options	
B	6004	SW	100	B	1	E
Ball bearing	Dimensions acc. to DIN 625-1	Skate wheel	Outer-Ø	Race material B180	Cage material	Ball material

Options
Cage material
1 = PA
Ball material
E = stainless steel
G = glass





- Larger outer diameter for smaller shafts
- Also used as roller in profiles

Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width
B6004SW100B1	20	100	12

Technical data

Size	Bearing load		Maximum speed	Weight	
	static	dynamic		E	G
	[lbs]	[lbs]	[rpm]	[g]	[g]
6004	55	66	1,400	60.5	55.7

Order example:
BB-6004SW100-B180-10-ES = xiros® skate wheel with 100 mm outer diameter, races made from xirodur® B180, PA cage and stainless steel balls

Axial ball bearings - Product range

Races made from xirodur® B180

Stainless steel balls
or glass balls

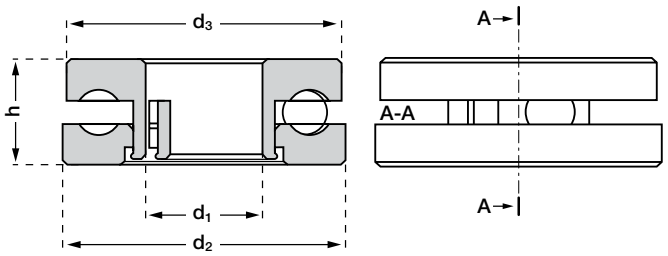
Double row,
stainless steel balls
or glass balls

● Suitable for absorbing axial forces

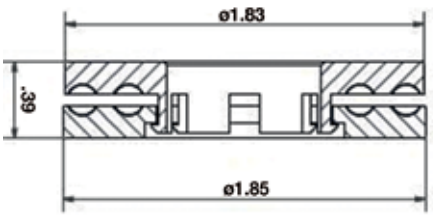
Order key

Type			xirodur®	Options
B	A	51104	B	E
Ball bearing	Axial	Dimensions acc. to DIN 625-1	Race/cage material B180	Ball material

Options:
Ball material
E = stainless steel
G = glass



Single row bearing



Double row bearing

Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Height	Cage/ball material combination	
	d1	d2	d3	h	B180/E	B180/G
BA51100B ☐	10	24	23.5	9	●	●
BA51104B ☐	20	35	34.5	10	●	●
BA51104BED	20	47	46.5	10	●	●

Technical data

Size	Double row	Bearing load		Maximum speed	Weight	
		static	dynamic		E	G
		[lbs]	[lbs]	[rpm]	[g]	[g]
51100		45	56	600	6.9	4.4
51104		146	182	460	14.0	8.0
51104	●	219	273	460	28.0	17.0

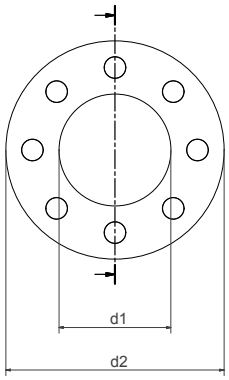
Order example:
BB-51100-B180-ES = axial ball bearing with B180 cage and stainless steel balls

Thrust washer - Product range

Races made from xirodur® B180

Stainless steel balls

Glass balls



Order key

Type			xirodur®	Options
B	TW	6000	B	E
Ball bearing	Thrust washer	Dimensions acc. to DIN 625-1	Cage material B180	Ball material

Options:
Ball material
E = stainless steel
G = glass

- Small mounting height
- Cost effective

Dimensions and technical data – related to metallic shafts [mm]

Part No.	Inner Ø	Outer Ø	Width		Race/ball material combination	
			Standard	Slim line		
	d1	d2	b1	b1	B180/ES	B180/GL
BTW626B ☐	6.2	18.8	3.18	–	●	●
BTW608B ☐	8.2	21.8	3.97	–	●	●
BTW6000B ☐	10.2	25.8	4.76	3.97	●	●
BTW6000B ☐ SL	10.2	25.8	3.97	–	●	●
BTW6004B ☐	21	41	4.76	–	●	●
BTW6006B ☐	29.9	45.5	4.76	3.97	●	●
BTW6006B ☐ SL	29.9	45.5	4.76	–	●	●

Size	Slim line	Recommended load capacity		Max. speed	Weight	
		stat.	dyn.		ES	GL
		[lbs]	[lbs]	[rpm]	[g]	[g]
626		77	96	2,000	1.2	0.9
608		108	135	1,700	1.3	1.0
6000		137	176	1,500	2.4	1.5
6000	●	91	112	1,500	2.2	1.3
6004		219	273	700	7.7	4.9
6006		208	346	600	7.5	4.7
6006	●	117	153	600	7.2	4.4

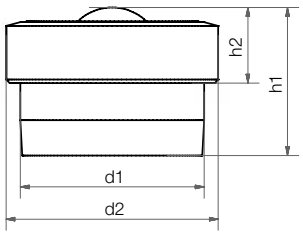
Order example:
BB-6000TW-B180-ES-SL = thrust washer with stainless steel balls, slim line version

Plastic ball transfer unit - Product range

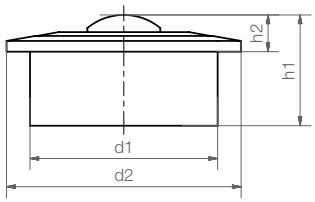
Made from xirodur® B180, for axial loads

Plastic ball transfer unit

Plastic ball transfer unit



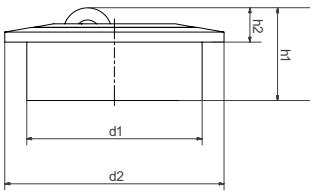
BB-505-B180-POM



BB-522-B180-POM
BB-515-B180-POM

Axial plastic ball transfer unit for high loads (HH)

Axial plastic ball transfer unit with soft roller made from xirodur® D180 (HS)



BB-515A-B180-HH/-HS
BB-522A-B180-HH/-HS

Axial plastic unit:
B180 = HH (hard roller)
D180 = HS (soft roller)

Order key

Type			xirodur®	Options
BT	522	A	B	HS
Ball transfer unit	Size	Axial	Housing Material B180	Ball Material

Options
Ball material
HS = soft roller
HH = hard roller
POM = POM

Dimensions [mm]

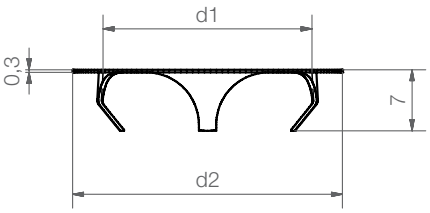
Part No.	Size	Inner Ø		Height	
		d1	d2	h1	h2
BT505BPOM	505	10.4	12.0	8.4	4.3
BT515BPOM	515	24.0	31.0	21.0	9.8
BT522BPOM	522	36.0	45.0	30.0	9.8
Axial plastic ball transfer unit					
BT515AB ☐	515A	24.0	31.0	14.3	5.3
BT522AB ☐	522A	36.0	45.0	21.25	7.05

Technical data

Part No.	Size	Maximum static bearing load axial [lbs]	Weight [g]
BT505BPOM	505	8	0.9
BT515BPOM	515	18	8.7
BT522BPOM	522	25	28.8
Axial plastic ball transfer unit			
BT515AB ☐	515A	34	15.6
BT522AB ☐	522A	67	21.7

Clamp rings for xiros®-polymer ball transfer units

xiros® clamp rings made from stainless steel offer the possibility to install xiros® ball transfer units in another orientation than the standard horizontal position. Easy assembly and disassembly.



Dimensions [mm]

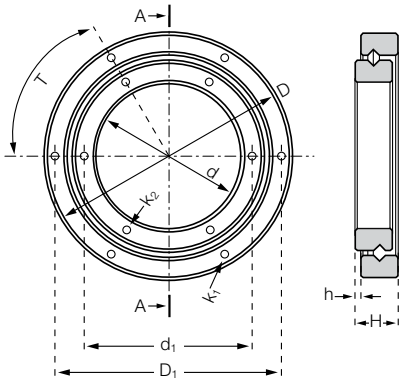
Part No.	For ball transfer unit	d1	d2	Housing bore
BB-515-CR	BB-515-B180-POM/BB-515A-B180- ☐	24	31	25.0 –0.2
BB-522-CR	BB-522-B180-POM/BB-522A-B180- ☐	36	41	37.3 –0.3

Slewing ring bearings - Product range

Made from xirodur® B180, low coefficients of friction

Standard version with stainless steel balls

Standard version with Glass balls



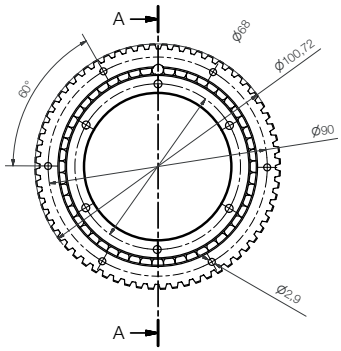
Standard version

Order key

Type		Size	Option	Option
B	RT	60	HDT5	E
Ball bearing	Slewing ring bearing	Inner-Ø	With gear teeth	Ball material

Options
With Gear teeth
HDT5 = with gear
Ball material
E = stainless steel
G = glass

HDT5 version
Stainless steel balls, with gear teeth



Version with gear teeth

Dimensions [mm]

Part No.	D	D1	d	d1	H	h	T	K1	K2
BRT60 ☐	100	90.0	60	68	17.5	2.5	60	3.3	3.3
BRT100 ☐	160	150.0	100	110	20	5	60	5.2	5.2
With gear teeth									
BRT60HDT5E	100	90.0	60	68	17.5	2.5	60	3.3	3.3

Technical data

Type	Bearing load		Maximum speed	Weight	
	static	dynamic		E	G
	[lbs]	[lbs]	[rpm]	[g]	[g]
BRT60 ☐	180	225	250	111.9	98.3
BRT100 ☐	281	337	250	250.8	231.1
With gear teeth					
BRT60HDT5E	180	225	860	110.0	–

Order example:
BRT60E = slewing ring bearing with stainless steel balls

Pillow block bearing - Product range

Races made from xirodur® B180, fixed version

igumid G housing,
PA cage, stainless steel balls

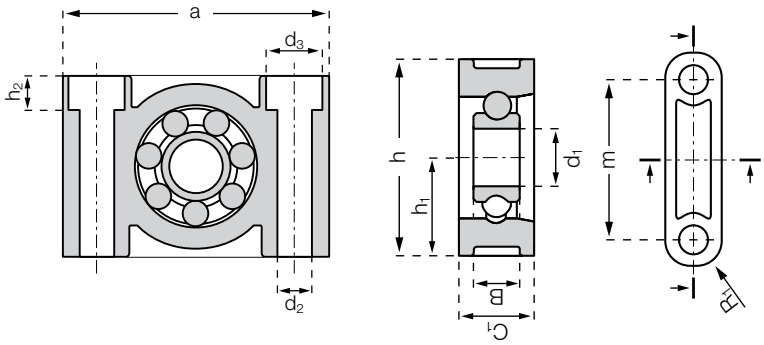
igumid G housing,
PA cage, glass balls

Order key

Type				Options	
ESTM	1	F	06	B	E
Ball bearing	Single row	Fixed version	Inner-Ø	Race material	Ball material

Options
Race material
B = xirodur® B180
Ball material
E = stainless steel
G = glass

- Suitable for wash-down and non-magnetic



Dimensions [mm]

Part No.	Inner Ø d1	Holes Ø d2	d3	h	h1	h2	a	m	C1	B	R1
ESTM1F06B ☐	6	5.5	–	22	11	–	36	26	10	6	5.0
ESTM1F10B ☐	10	6.6	10.6	34	17	6.6	50	37	13	8	6.5
ESTM1F20B ☐	20	9.0	14.0	48	24	8.6	72	54	18	12	9.0

Technical data

Type	Maximum static bearing load axial	Bearing load		Maximum speed	Weight	
		static	dynamic		E	G
	[lbs]	[lbs]	[lbs]	[rpm]	[g]	[g]
ESTM-F06	21	11	16	2,600	7.7	6.7
ESTM-F10	64	19	27	1,900	20.2	18.2
ESTM-F20	90	47	66	1,150	54.1	47.7

Order example:
ESTM1F06BE = pillow block bearing, fixed version, made from xirodur® B180 with stainless steel balls

Pillow block bearing - Product range

Races made from xirodur® B180, pivoting version

igumid G housing,
PA cage, stainless steel balls

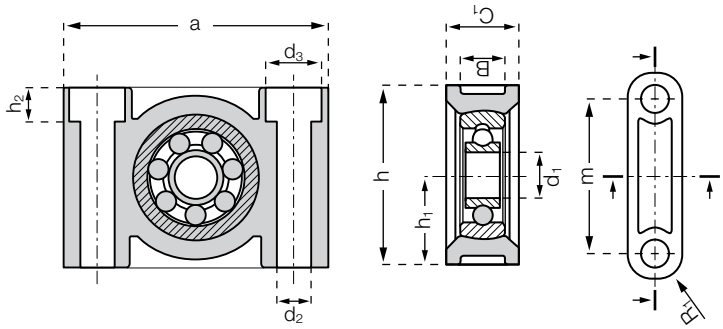
igumid G housing,
PA cage, Glass balls

Order key

Type				Options	
ESTM	1	P	08	B	E
Ball bearing	Single row	Pivoting version	Inner-Ø	Race material	Ball material

Options
Race material
B = xirodur® B180
Ball material
E = stainless steel
G = glass

● Compensation of misalignment errors



Dimensions [mm]

Part No.	Inner Ø d1	Holes Ø d2	d3	h	h1	h2	a	m	C1	B	R1	Maximum pivot angle
ESTM1P08B ☐	8	6.6	10.6	34	17	6.4	50	37	13	8	6.5	±5°
ESTM1P10B ☐	10	9.0	14.0	40	20	8.6	62	46	16	10	8	±5°
ESTM1P12B ☐	12	9.0	14.0	48	24	8.6	72	54	18	12	9	±5°

Technical data

Type	Maximum static bearing load axial	Bearing load		Maximum speed	Weight	
		static	dynamic		E	G
	[N]	[N]	[N]	[rpm]	[g]	[g]
ESTM-P08	37	13	19	2,200	19.6	18.2
ESTM-P10	64	19	27	1,900	32.9	30.3
ESTM-P12	71	24	33	1,750	54.8	52.8

Order example:
ESTM1P08BE = pillow block bearing, pivoting version, made from xirodur® B180 with stainless steel balls

4-hole flange bearing - Product range

Races made from xirodur® B180, pivoting version

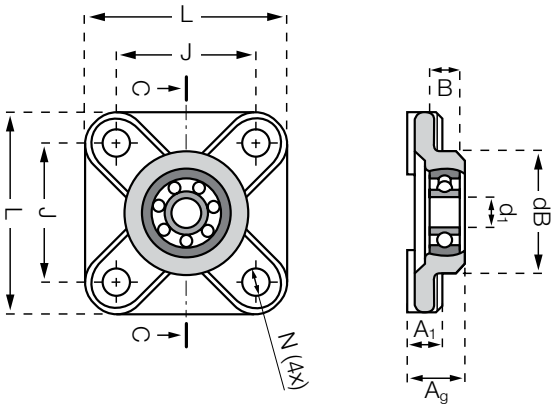
igumid G housing,
PA cage, stainless
steel or glass balls

Order key

Type				Options	
ESFM	1	P	08	B	E
Ball bearing	Single row	Fixed version	Inner-Ø	Race material	Ball material

Options
Race material
B = xirodur® B180
Ball material
E = stainless steel
G = glass

- Compensation of misalignment errors



Dimensions [mm]

Part No.	Inner Ø d1	dB d2	L	J	A1	Ag	B	N	Maximum pivot angle
EFSM1P08B☐	8	32.5	52	36	9	15.5	8	6.4	±5°
EFSM1P10B☐	10	40.0	65	45	11	18.8	10	8.4	±5°
EFSM1P12B☐	12	48.0	74	52	14	23.5	12	8.4	±5°

Technical data

Type	Maximum static bearing load axial	Bearing load		Maximum speed	Weight	
		static	dynamic		E	G
	[N]	[N]	[N]	[rpm]	[g]	[g]
EFSM-P08	37	13	19	2,200	25.2	24.0
EFSM-P10	64	19	27	1,900	48.8	46.2
EFSM-P12	71	24	33	1,750	80.0	77.7

Order example:
EFSM1P08BE = 4-hole flange bearing made from xirodur® B180 with stainless steel balls

2-hole flange bearing - Product range

Races made from xirodur® B180, pivoting version

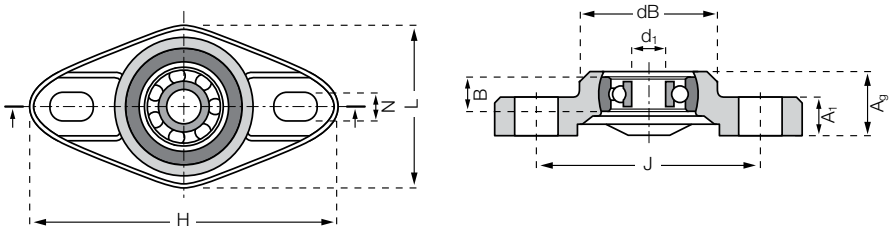
igumid G housing,
PA cage, stainless steel
or glass balls

Order key

Type				Options	
ESFM	1	P	08	B	E
Ball bearing	Single row	Fixed version	Inner-Ø	Race material	Ball material

Options
Race material
B = xirodur® B180
Ball material
E = stainless steel
G = glass

- Trouble free readjustment thanks to extended holes
- Precise alignment of the bearings not necessary



Dimensions [mm]

Part No.	Inner Ø d1	dB d2	H	L	J	A1	Ag	B	N	Max. pivot angle
EFOM1P08B	8	32.5	72.6	38	53	10	15.5	8	6.4x10.1	±5°
EFOM1P10B	10	40.0	89.0	47	65	11	18.8	10	8.4x12.5	±5°
EFOM1P12B	12	48.5	101.0	58.5	75	14	23.5	12	8.4x12.5	±5°

Technical data

Type	Maximum static bearing load axial	Bearing load		Maximum speed	Weight	
		static	dynamic		E	G
	[lbs]	[lbs]	[lbs]	[rpm]	[g]	[g]
EFOM-P08	37	13	19	2,200	19.5	18.1
EFOM-P10	64	19	27	1,900	36.3	33.6
EFOM-P12	71	24	33	1,750	61.7	59.4

Order example:
EFOM1P08BE = 2-hole flange bearing made from xirodur® B180 with stainless steel balls

Notes

Notes

Notes