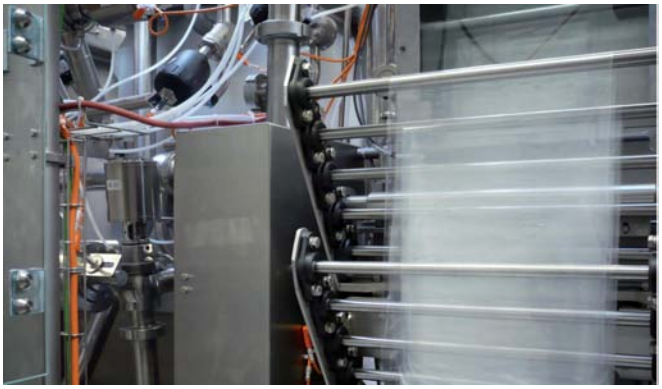
xiros® polymer ball bearings

The xiros® polymer ball bearings are single row grooved ball bearings and are comprised of four components.

- the outer race
- the inner race
- the cage
- and the balls

Inner and outer races are made of igus® thermoplastics in order to maximize service life and reduce friction. In contrast to metallic ball bearings, xiros® polymer ball bearings are complete with dry lubricants eliminating the need for wet external lubricants that attract dirt, dust and other contaminants.



xiros® used in film guide rollers

Benefits:

- Self-lubricating
- Maintenance-free
- Non-magnetic
- Corrosion-resistant
- Lightweight
- FDA approved option
- Good with chemicals
- Good with moisture
- Good in cleanroom environments
- Perfect for light load, high-speed applications

Industries:

- Food
- Medical
- Packaging
- Textile
- and many others

Options:

- 316 SS, glass, plastic balls
- A500 (FDA approved race)
- B180 race
- C160 race

Visit www.igus.com to use the xiros® service life calculator

No minimum order - free samples available
3D CAD files available as download

igus®
Plastics for longer life

1-888-803-1895 • fax: 401-438-7680
Visit www.igus.com for further information

xiros® Material Data

iglide® A500 Material Table

General Properties	Unit	iglide® A500
Color		beige
Max. moisture absorption at 73°F/50% r.h.	% weight	0.3
Max. moisture absorption	% weight	0.5
Mechanical Properties		
Modulus of elasticity	psi	522,000
Max. Permissible surface pressure at 68°F	psi	20,300
Shore D-hardness		83
Physical and Thermal Properties		
Max. long-term application temperature	°F	482
Max. short-term application temperature	°F	572
Min. application temperature	°F	-148

iglide® B180 Material Table

General Properties	Unit	iglide® B180
Color		white
Max. moisture absorption at 73°F/50% r.h.	% weight	0.3
Max. moisture absorption	% weight	1.3
Mechanical Properties		
Modulus of elasticity	psi	348,100
Max. Permissible surface pressure at 68°F	psi	10,590
Shore D-hardness		74
Physical and Thermal Properties		
Max. long-term application temperature	°F	194
Max. short-term application temperature	°F	248
Min. application temperature	°F	-40

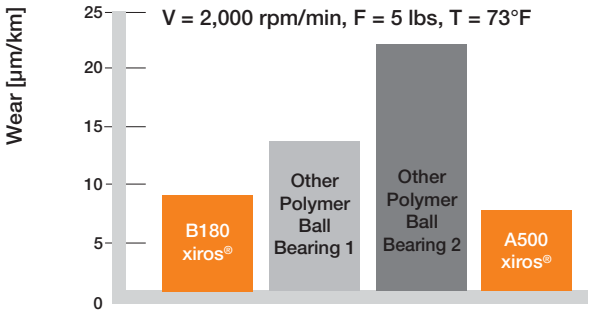
iglide® C160 Material Table

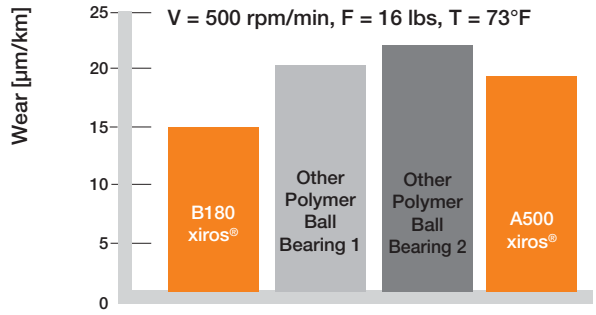
General Properties	Unit	iglide® C160
Color		opaque
Max. moisture absorption at 73°F/50% r.h.	% weight	0.1
Max. moisture absorption	% weight	0.2
Mechanical Properties		
Modulus of elasticity	psi	275,570
Max. Permissible surface pressure at 68°F	psi	5,076
Shore D-hardness		67
Physical and Thermal Properties		
Max. long-term application temperature	°F	176
Max. short-term application temperature	°F	230
Min. application temperature	°F	-40

igumid G Material Table

General Properties	Unit	igumid G
Color		black
Max. moisture absorption at 73°F/50% r.h.	% weight	1.4
Max. moisture absorption	% weight	5.6
Mechanical Properties		
Modulus of elasticity	psi	1,131,000
Max. Permissible surface pressure at 68°F	psi	34,800
Shore D-hardness		81
Physical and Thermal Properties		
Max. long-term application temperature	°F	248
Max. short-term application temperature	°F	356
Min. application temperature	°F	-40

Comparison tests in igus® lab:





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xiros® wear testing in igus® laboratory