

Datasheet AS RS40



AS RS40 bearing materials is reinforced weave polymer material special developed for high loads and smooth running. The material contains an ideal concentration of solid lubrication fillers which gives the best result in areas where reduced friction and wear is required. AS RS40 has exceptional wear resistance and is suitable for operating under dry, wet and lubricated circumstances. AS RS 40 has a very low coefficient of friction, can withstand edge loading and has virtually no swell in water.

AS RS40 is produced under approval of ISO 9001 for all manufacturing operations and tested in laboratories.

AS RS40 is available from 16 mm inside diameter tube up to 2500 mm outside diameter. Also bigger sizes are available. It can be made of sheet from 2.5 mm up to 200 mm thickness.

AS RS40 is applied in offshore, dredging, marine, deck equipment, machines, bridges, lock gates, hydraulic cylinders and other equipment.

Material structure: Synthetic fiber-reinforced polyester composite with solid lubrication additives.

Features:

- Low frictional coefficient.
- High load carrying capacity.
- Good chemical resistance.
- No electro-chemical corrosion in aqueous solution.
- Non-magnetic/low water uptake.
- No stick slip.

Operating conditions: Dry, water lubricated, maintenance-free.

Availability: Tubes, plates, cylindrical bushes, flanged bushes, machined parts.

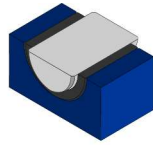
Typical usage: High load sliding bearings, sliding pads and wear rings for mechanical devices, hinges, lock gates, deck equipment, hydraulic cylinders, material handling, food processing, automotive, brewing/bottling.

Material	
Material	Composite

Availability	Unit	Value
Min. inside diameter	mm	16
Max. outside diameter	mm	2000 (bigger diameter possible made of arced segments)
Length standard	mm	500 (longer on request)

Physical Properties	Test Standard	Unit	Value
Density	ASTM D792	g/cm ³	1.25
Max. swell in water at 20 °C	ASTM D570	%	0.1

Mechanical Properties	Test Standard	Unit	Value
Compressive strength static	ASTM D695	MPa	330
Compressive strength dynamic	ASTM D695	MPa	85
Module of elasticity	ASTM D695	MPa	2280
Tensile strength	ASTM D3410	MPa	60
Shear strength	ASTM D3410	MPa	80
Impact strength	ASTM D256	kJ/m ²	50



Thermal Properties	Test Standard	Unit	Value
Thermal expansion	ASTM D696	$*10^{-5}/^{\circ}\text{C}$	7
Min. working temperature		$^{\circ}\text{C}$	-40
Max. working temperature		$^{\circ}\text{C}$	120
Intermittent working temperature		$^{\circ}\text{C}$	140

Friction Properties	Test Standard	Unit	Value
Coefficient of friction	Pin-on-ring	Dry	0,13
Coefficient of friction	Pin-on-ring	Lubricated	0,05
Max. sliding speed	Pin-on-ring	m/s	2
Max. pv load dry	Pin-on-ring	$\text{MPa}*\text{m/s}$	0.25
Max. pv load oil lubricated	Pin-on-ring	$\text{MPa}*\text{m/s}$	0.5
Max. pv load regular greased	Pin-on-ring	$\text{MPa}*\text{m/s}$	0.7
Wear factor	Pin-on-ring	$*10^{-9} \text{ mm}^2/\text{N}$	1.3