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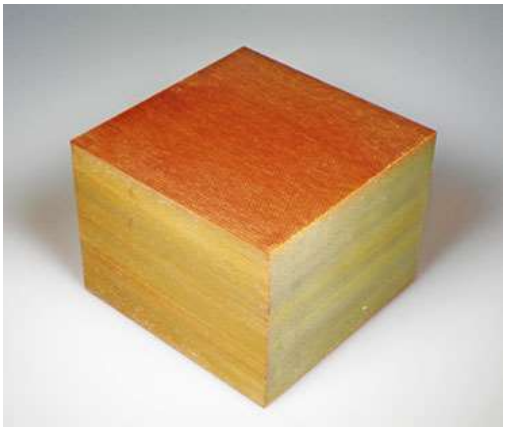
Datasheet AS RS80



AS RS80 bearing materials is reinforced weave polymer material special developed for very extreme loads and has outstanding high mechanical properties, even at high temperatures. It is the strongest available synthetic bearing material on the world market. The material is extreme tough and can withstand the high radial and axial surface pressure. AS RS80 has good wear resistance and is suitable for operating under dry, wet and lubricated circumstances. AS RS80 has a medium coefficient of friction, can withstand edge loading and has virtually no swell in water. ASEC Kunststoffen B.V. recommends to provide the counter faces with a hardened surface to protect it from wear.

AS RS80 is produced under approval of ISO 9001 for all manufacturing operations and tested in laboratories.

AS RS80 is available from 3 mm inside diameter tube up to 1250 mm outside diameter. Sheet thickness up to 100 mm. Bigger sizes on request.

AS RS80 is applied in aerospace, offshore, steel structures, machines, cranes, hydraulic cylinders and other equipment.

(1): Hardness rockwell: HRM.
(2): Hardness rockwell: HRC.
(3): Coefficient of friction dynamic: oil/grease.

Material	
Material	Composite

Availability	Unit	Value
Min. inside diameter	mm	3 (and sheet 0,2-100mm)
Max. outside diameter	mm	1250
Length standard	mm	600 (longer on request)

ASEC
Advanced Synthetic Engineering Components

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Physical Properties	Test Standard	Unit	Value
Density	ISO 178	g/cm^3	1,95
Max. swell in water at 20 °C	ISO 62-1	mg	12

Mechanical Properties	Test Standard	Unit	Value
Compressive strength static	ISO 178	MPa	450
Compressive strength dynamic	ISO 178	MPa	360
Module of elasticity	ISO 178	MPa	25.000
Tensile strength	ISO 527	MPa	320
Shear strength (parallel)	IEC 60893	MPa	55
Impact strength	ISO 180	kJ/m^2	55
Hardness Rockwell		HRM/HRC	

Thermal Properties	Test Standard	Unit	Value
Thermal expansion		*10^$^{-5}$/ °C	
Min. working temperature		°C	Cryogen
Max. working temperature		°C	200
Intermittent working temperature		°C	250

Friction Properties	Test Standard	Unit	Value
Coefficient of friction dynamic	Pin-on-ring	Dry against steel	0,30
Max. sliding speed	Pin-on-ring	m/s	
Max. pv load dry	Pin-on-ring	MPa*m/s	
Max. pv load oil lubricated	Pin-on-ring	MPa*m/s	
Max. pv load regular greased	Pin-on-ring	MPa*m/s	
Wear factor	Pin-on-ring	*10^$^{-9}$ m^2/N	