

Datasheet AS DF13

AS DF13 composite bearing material is made of modified fluorinated polymer with filling of metallic and non-metallic elements. AS DF13 is a high performance material, formed with advanced technology at specific temperature and pressure. The material has good thermal conductivity, stable dimension and able to withstand high surface pressure. AS DF13 has good wear resistance and is suitable for operating under dry, wet and lubricated circumstances. AS DF13 has a very low coefficient of friction, 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 DF13 is produced under approval of ISO 9001 for all manufacturing operations and tested in laboratories.

AS DF13 is available from 20 mm inside diameter tube up to 250 mm outside diameter. Bigger sizes available on request.

AS DF13 is used a material for bearings, seals and gaskets in machines, offshore, in petrochemical industry 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	On request
Max. outside diameter	mm	On request
Length standard	mm	On request

Physical Properties	Test Standard	Unit	Value
Density	ASTM D792	g/cm ³	2.6
Max. swell in water at 20 °C	ASTM D570	%	0.1

Mechanical Properties	Test Standard	Unit	Value
Compressive strength static	ASTM D695	MPa	30
Compressive strength dynamic	ASTM D695	MPa	26
Module of elasticity	ASTM D695	MPa	-
Tensile strength	ASTM D3410	MPa	13
Shear strength	ASTM D3410	MPa	-
Impact strength	ASTM D256	kJ/m ²	20
Hardness rockwell	ASTM D785	HRM/HRC	-

Thermal Properties	Test Standard	Unit	Value
Thermal expansion	ASTM D696	*10 ⁻⁵ / °C	-
Min. working temperature		°C	-40
Max. working temperature		°C	180
Intermittent working temperature		°C	200

Friction Properties	Test Standard	Unit	Value
Coefficient of friction dynamic	Pin-on-ring	Dry against steel	0.11
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	-