

## Datasheet ASFW



ASFW composite bearings have two layers that are manufactured by a filament winding process. The bearing layer is composed of a proprietary designed woven structure of PTFE and high-strength synthetic fibres with specially formulated solid lubricant additions. These PTFE fibres and solid lubricants are the primary mechanisms for allowing the ASFW product to operate in a self-lubricating condition. The material is extremely tough and can withstand high radial and axial surface pressure. ASFW has good wear resistance and is suitable for operating under dry, wet, and lubricated circumstances. ASFW has a low coefficient of friction, can withstand edge loading, and has virtually no swell in water. ASEC Products recommends providing the counter faces with a hardened surface to protect them from wear. ASFW is produced under the approval of ISO 9001 for all manufacturing operations and tested in laboratories.

## Application

## Material

Filament winding thermoset resin with fibres and additives.

## Availability

	Value	Unit
Tube inside diameter	20-150	mm
Tube outside diameter	23-150	mm
Length standard	500	mm
Inside diameter	on request	
Outside diameter	on request	
Flange diameter	on request	
Flange height	on request	
Total length	on request	



## ASFW - Specifications

### Physical properties

	Test standard	Value	Unit
Density	ASTM D792	2,03	g/cm <sup>3</sup>
Thermal conductivity		0,40	W/MK
Water absorption % volumetric		0,11	%

### Mechanical properties

	Test standard	Value	Unit
Compressive strength static	ASTM D695	210	MPa
Module of elasticity - Youngs modulus		on request	
Tensile strength		on request	
Shear strength		on request	
Impact strength		on request	
Hardness		on request	
Dynamic load capacity		on request	
Speed limit v max dry		0,1	m/s

### Thermal properties

	Test standard	Value	Unit
Thermal expansion Parallel to laminate	ASTM D696	13,0	[-]
Thermal expansion Normal to laminate	ASTM D696	13,0	[-]
Min. working temperature		-100	°C
Max. working temperature		160	°C
Intermittent working temperature		180	°C

### Friction properties

	Test standard	Value	Unit
Coefficient of friction dynamic	pin-on-ring/dry against steel	0,03-0,20	[-]
Max. sliding speed	pin-on-ring/dry against steel	0,1	m/s
Max. Pv-load dry	pin-on-ring/dry against steel	2,80	MPa*m/s
Max. Pv-load oil lubricated		on request	
Max. Pv-load on regular greased		on request	

### Electrical properties

	Test standard	Value	Unit
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