

Datasheet AS MOSTUF NW(T)



AS MOSTUF NW (new version of T) composite bearings have two layers that are manufactured by a filament winding process. Bearing layer is composed of a proprietary designed woven structure of PTFE and high strength synthetic fibers with specially formulated solid lubricant additions. These PTFE fibers and solid lubricants are the main mechanism for allowing the MOSTUF product to operate in a self-lubricating condition. The material is extreme tough and can withstand the high radial and axial surface pressure. AS MOSTUF NW(T) has good wear resistance and is suitable for operating under dry, wet and lubricated circumstances. AS MOSTUF NW(T) has a low 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 MOSTUF NW(T) is produced under approval of ISO 9001 for all manufacturing operations and tested in laboratories.

AS MOSTUF NW(T) is available from 20 mm inside diameter tube up to 300 mm outside diameter. Bigger sizes on request.

AS MOSTUF NW(T) is applied in offshore, steel structures, machines, cranes, transport vehicles, hydraulic cylinders and agricultural and other equipment.

Material structure: MOSTUF composite bearings have two layers that are manufactured by a filament winding process. And various bearing layers are available as per applied conditions. MOSTUF composite bearings maintain high compressive strength with fiberglass-epoxy backing layer which is manufactured at a specific angle by filament winding process.

Applications: MOSTUF composite bearings are sliding bearings to be applied in the condition of non-lubricated high load. They have excellent mechanical properties and fatigue strength. MOSTUF composite bearings are suitable for rotating, oscillating and reciprocating movements under slow speed. And they exhibit excellent performance in vacuum and underwater circumstance.

- (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	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	2
Max. swell in water at 20 °C	ASTM D570	%	0.1

Mechanical Properties	Test Standard	Unit	Value
Compressive strength static	ASTM D695	MPa	240
Compressive strength dynamic	ASTM D695	MPa	140
Module of elasticity	ASTM D695	MPa	12000
Tensile strength	ASTM D3410	MPa	-
Shear strength	ASTM D3410	MPa	-
Impact strength	ASTM D256	kJ/m ²	-
Hardness rockwell	ASTM D785	HRM/HRC	95 ⁽¹⁾

Thermal Properties	Test Standard	Unit	Value
Thermal expansion	ASTM D696	*10 ⁻⁵ / °C	13
Min. working temperature		°C	-100
Max. working temperature		°C	160
Intermittent working temperature		°C	180

Friction Properties	Test Standard	Unit	Value
Coefficient of friction dynamic	Pin-on-ring	Dry against steel	0.08
Max. sliding speed	Pin-on-ring	m/s	0.2
Max. pv load dry	Pin-on-ring	MPa*m/s	1.8
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	-