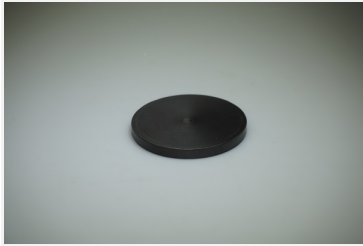


Datasheet AE1500XT



High performance tribological properties and very low wear are further characteristics of this modified PEEK with high pressure-velocity capabilities. AE1500XT has good engineering properties, as it is tough, strong, rigid and creep resistant.

Application

Friction bearings under high load and at the same time exposed to high temperatures.

Material

Polyetheretherketone.

Availability

	Value	Unit
Rod diameters	6-100	mm
Tube inside diameter	on request	
Tube outside diameter	on request	
Length standard	3000	mm
Sheet thickness	mei-80	mm
Sheet size	610x3000	mm



AE1500XT - Specifications

Physical properties

	Test standard	Value	Unit
Density		1,45	g/cm ³
Thermal conductivity	Method A	0,24	W/m°K
Specific heat capacity		on request	
Moisture absorption at 23°C, 50% RH	ISO 62	0,06	%
Water absorption at 23 °C	ISO 62	0,4	%
Flammability	UL 94	V-0	[-]

Mechanical properties

	Test standard	Value	Unit
Hardness	ISO 868	85	SHORE-D
Yield stress	ISO 527	120	MPa
Elongation at break	ISO 527	2	%
Modulus of elasticity in tension	ISO 527	9000	MPa
Bending modulus	Flexural test	9100	MPa
Flexural strength	ISO 178	190	MPa
Charpy impact strength +23°C	ISO 179/1eU	40	kJ/m ²
Charpy notched impact strength +23°C	ISO/1eA	5	kJ/m ²
Ball indentation hardness	ISO 2039-1	242	MPa
Compressive modulus	ISO 604	2800	MPa

Thermal properties

	Test standard	Value	Unit
Min. working temperature		-30	°C
Max. working temperature		250	°C
Intermittent working temperature		300	°C
Heat distortion temperature	Method A ISO 75	315	°C
Melting temperature	ISO 3146	340	°C
Thermal coefficient of linear expansion	DIN 53752	2,2	1/K.10-5

Friction properties

	Test standard	Value	Unit
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Electrical properties

	Test standard	Value	Unit
Dielectric constant		on request	
Dielectric loss factor		on request	
Dielectric strength		on request	
Dielectric constant at 1MHZ	IEC 250	4,9	[-]
Volume resistivity	IEC 93	10 ³ - 10 ⁷	Ω.cm

Electrical properties

Surface resistivity	IEC 93	10 ⁵	Ω
Resistance to tracking (CTI)		on request	