

## 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 <sup>3</sup>
Thermal conductivity	Method A	0,24	W/m <sup>2</sup> 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 <sup>2</sup>
Charpy notched impact strength +23°C	ISO/1eA	5	kJ/m <sup>2</sup>
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 <sup>3</sup> - 10 <sup>7</sup>	Ω.cm

## Electrical properties

Surface resistivity	IEC 93	$10^5$	$\Omega$
Resistance to tracking (CTI)		on request	

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