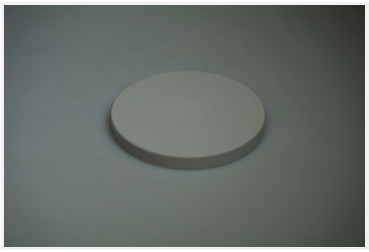
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Datasheet AE1400PBT



AE1400PBT is an internally lubricated material which shows a significantly reduced coefficient of friction and increased resistance to wear compared to unfilled PET. It even outperforms materials such as wax of oil filled Cast Nylon products. It's also a material of choice for applications involving soft metal and plastic mating surface.

Application

Rollers, precision plain bearings, toothed gears, valves, distribution valves, etc.

Material

Thermoplastic Polyester + solid lubricant.

Availablity

	Value	Unit
Rod diameters	6-140	mm
Tube inside diameter	10-160	mm
Tube outside diameter	25-210	mm
Length standard	3000	mm
Sheet thickness	8-100	mm
Sheet size	610x2000	mm





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AE1400PBT - Specifications

Physical properties

	Test standard	Value	Unit
Density		1,39	g/cm³
Thermal conductivity		on request	
Specific heat capacity		on request	
Moisture absorption at 23°C, 50% RH	ISO 62	0,23	%
Water absorption at 23 °C	ISO 62	0,5	%
Flammability	UL 94	HB	[-]

Mechanical properties

	Test standard	Value	Unit
Tensile strength	ISO 527	80	MPa
Hardness	ISO 868	81	SHORE-D
Yield stress	ISO 527	80	MPa
Elongation at break	ISO 527	10	%
Modulus of elasticity in tension	ISO 527	3300	MPa
Bending modulus	Flexural test	3000	MPa
Flexural strength	ISO 178	115	MPa
Charpy impact strength +23°C	ISO 179/1eU	60	kJ/m²
Charpy notched impact strength +23°C	ISO/1eA	2,8	kJ/m²
Ball indentation hardness	ISO 2039-1	175	MPa
Compressive modulus	ISO 604	2800	MPa

Thermal properties

	Test standard	Value	Unit
Min. working temperature		-20	°C
Max. working temperature		110	°C
Intermittent working temperature		160	°C
Heat distortion temperature	Method A ISO 75	100	°C
Melting temperature		on request	
Thermal coefficient of linear expansion	DIN 53752	6	1/K.10-5

Friction properties

	Test standard	Value	Unit

Electrical properties

	Test standard	Value	Unit
Dielectric constant		on request	
Dielectric loss factor		on request	
Dielectric strength	IEC 243	20	KV/mm
Dielectric constant at 1MHZ	IEC 250	3,3	[-]

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Electrical properties

Volume resistivity		on request	
Surface resistivity	IEC 93	10^{13}	Ω
Resistance to tracking (CTI)	DIN EN 60112	600	[-]

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