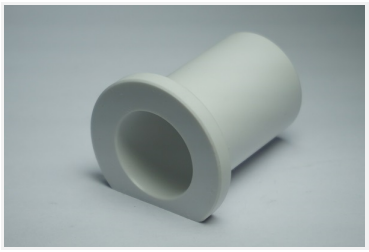
ASEC Products
Marketing 17
6921 RE Duiven
The Netherlands
T. +31 316 84 44 01
info@asecproducts.com
www.asecproducts.com

Datasheet AE1400



AE1400 is a partly crystalline thermoplastic polyester based on Polyethylene-Terephtalate.

Application

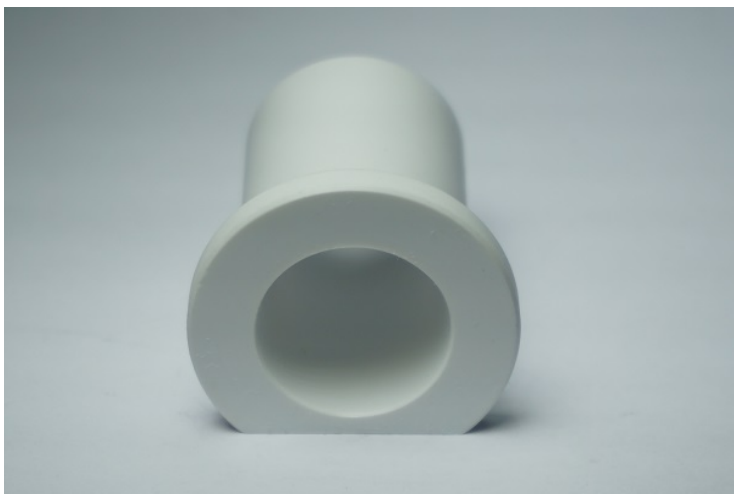
Parts exposed to high pressure such as rollers, toothed gears, valves, distribution valves, precision plain bearings, plug connectors.

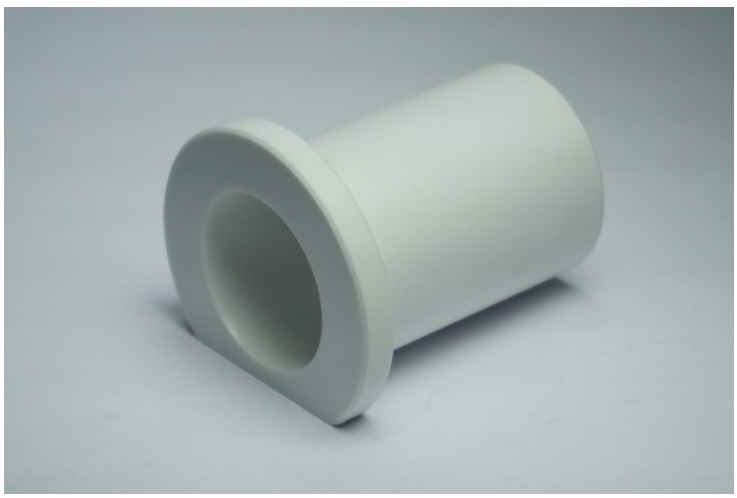
Material

Thermoplastic Polyester.

Availablity

	Value	Unit
Rod diameters	30-500	mm
Tube inside diameter	30-200	mm
Tube outside diameter	20-250	mm
Length standard	1000-3000	mm
Sheet thickness	aug-60	mm
Sheet size	1000x3000	mm





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AE1400 - Specifications

Physical properties

	Test standard	Value	Unit
Density	ISO 1183	1,36	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 52	88	MPa
Hardness	ISO 868	81	SHORE-D
Yield stress	ISO 527	88	MPa
Elongation at break	ISO 527	10	%
Modulus of elasticity in tension	ISO 527	3400	MPa
Bending modulus	Flexural test	3300	MPa
Flexural strength	ISO 178	1130	MPa
Charpy impact strength +23°C	ISO 179/1eU	82	kJ/m²
Charpy notched impact strength +23°C	ISO/1eA	2,8	kJ/m²
Ball indentation hardness	ISO 2039-1	177	MPa
Compressive modulus	ISO 604	2400	MPa

Thermal properties

	Test standard	Value	Unit
Min. working temperature		-20	°C
Max. working temperature		100	°C
Intermittent working temperature		160	°C
Heat distortion temperature	Method A ISO 75	100	°C
Melting temperature	ISO 3146	255	°C
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	IEC 93	10^{15}	Ω.cm
Surface resistivity		on request	
Resistance to tracking (CTI)		on request	

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