

## Datasheet AE1400



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

### Application

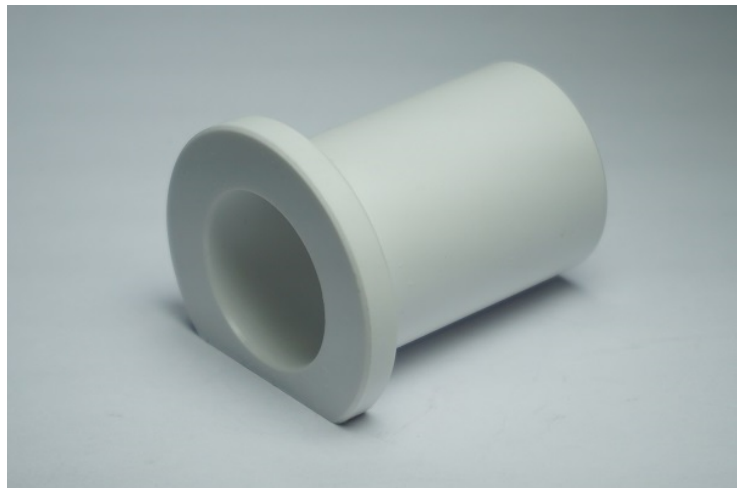
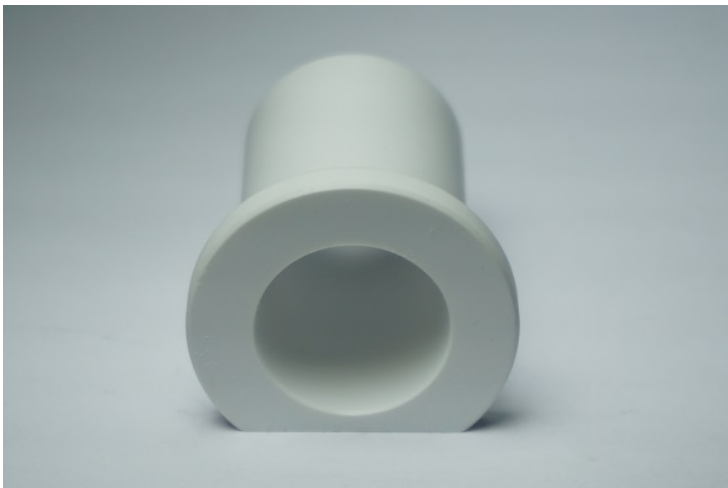
Parts exposed to high pressure such as rollers, toothed gears, valves, distribution valves, precision plain bearings, plug connectors.

### Material

Thermoplastic Polyester.

### Availability

	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



## AE1400 - Specifications

### Physical properties

	Test standard	Value	Unit
Density	ISO 1183	1,36	g/cm <sup>3</sup>
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/m <sup>2</sup>
Charpy notched impact strength +23°C	ISO/1eA	2,8	kJ/m <sup>2</sup>
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	[-]

## Electrical properties

Volume resistivity	IEC 93	$10^{15}$	$\Omega \cdot \text{cm}$
Surface resistivity		on request	
Resistance to tracking (CTI)		on request	

The information in this datasheet is provided for general purposes only and not meant to be a specific recommendation for any individual application. All values were determined under laboratory conditions. ASEC Products is not directly neither indirectly responsible for any claim resulting from the use of any information provided in this datasheet.