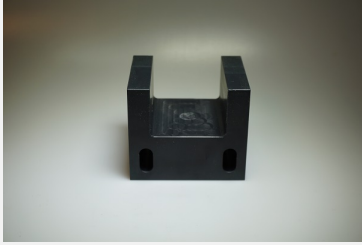


Datasheet AE1400BL



PET is a partly crystalline thermoplastic Polyester based on Polyethylene-Terephthalate. This material features outstanding dimensional stability as it is virtually unaffected by ambient moisture. A low coefficient of friction and excellent wear resistance combined with low creep and high E-modulus of elasticity in tension makes it the choice material for moving parts. Hot water resistance is low but it has better resistance to acids than Nylon or Acetal. AE1400BL is produced without centreline porosity and is approved for contact with food (FDA and EU 10/2011). As it is more rigid than other thermoplastics, please consult our machining guidelines.

Application

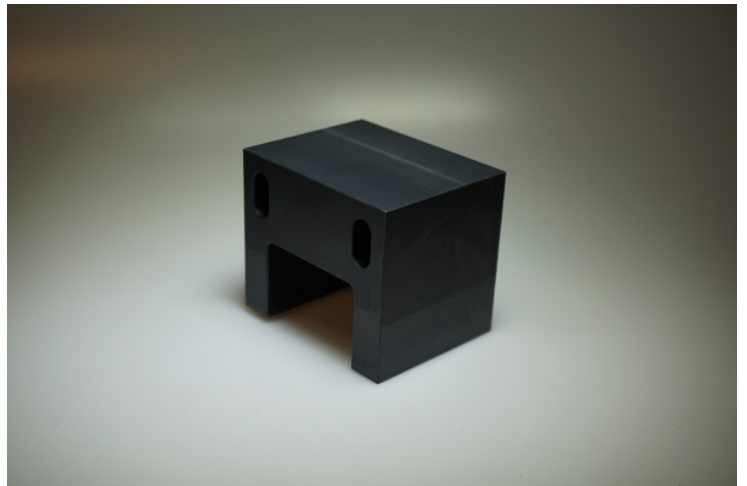
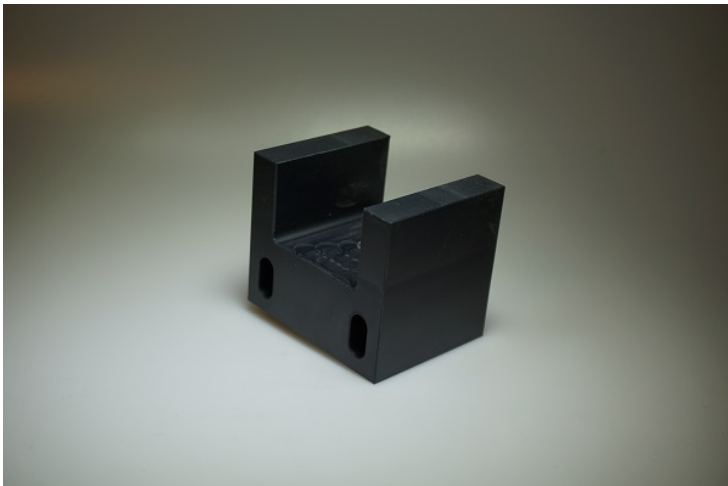
Bushings and bearings, gears, cams, mandrels, manifolds, wear strips, hamburger and nugget dies, food piston pumps, valves and valve bodies, feeder blocks, filter tracks, electrical insulators, etc.

Material

Thermoplastic Polyester.

Availability

	Value	Unit
Rod diameters	6-200	mm
Tube inside diameter	10-160	mm
Tube outside diameter	25-210	mm
Length standard	3000	mm
Sheet thickness	2-120	mm
Sheet size	610/1000x2000	mm



AE1400BL - Specifications

Physical properties

	Test standard	Value	Unit
Density	ISO 1183	1,36	g/cm ³
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	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	130	MPa
Charpy impact strength +23°C	ISO 179/1eU	82	kJ/m ²
Charpy notched impact strength +23°C	ISO/1eA	2,8	kJ/m ²
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
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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	Ω.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.