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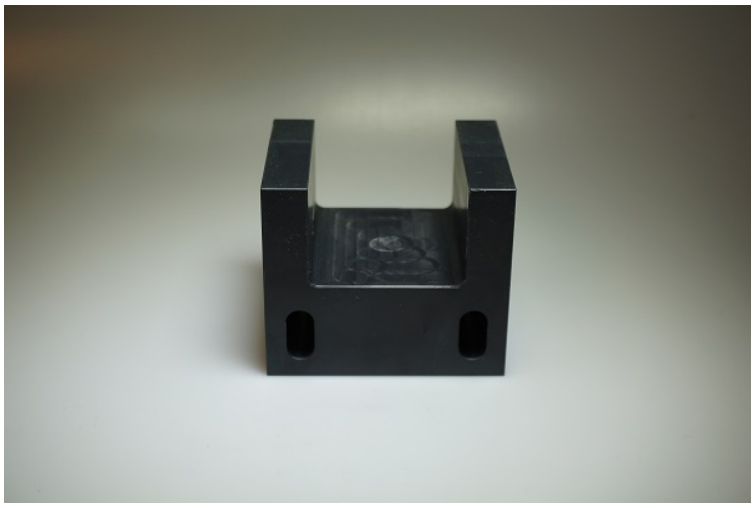

ENGINEERING PLASTICS PET AE-ZL1400BL

SKU: AEZL1400BL

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Categories: PET

Features

- Virtually unaffected by ambient moisture.
- Produced without centerline porosity.
- Outstanding dimensional stability.
- Excellent for moving parts.
- Approved for contact with food (BFR, FDA and EU 10/2011).

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 (PET)

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. AEZL1400BL is produced without centerline 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.

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Availablity		Value	Unit
Rod diameters		6-200	mm
Tube outside diameter		25-210	mm
Tube inside diameter		10-160	mm
Length standard		3000	
Sheet size		610/1000x2000	mm
Sheet thickness		2-120	mm
Physical properties	**Test standard**	**Value**	**Unit**
Density	ISO 1183	1,36	g/cm³
Food contact allowed		High	[-]
Wear Resistance		Middel	[-]
Dimensional stability		High	[-]
Moisture absorption at 23°C, 50% RH	ISO 62	0.2	%
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	130	MPa
Charpy impact strength +23°C	ISO 179/1eU	82	kJ/m²
Charpy notched impact strength +23°C	ISO/1eA	3.0	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
Inter. 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
Electrical properties	**Test standard**	**Value**	**Unit**
Dielectric strength	IEC 243	20	kV/mm
Dielectric constant at 1MHZ	IEC 250	3,3	[-]
Volume resistivity	IEC 93	10 15	Ω.cm
Friction properties	**Test standard**	**Value**	**Unit**
Coefficient of friction		High	[-]

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