ASEC



ENGINEERING PLASTICS PEI AE-ZL1000PEIBL

SKU: AEZL1000PEIBL

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Categories: PEI

Features

- Highly resistant to a wide range of chemicals.
- Hydrolysis resistant.
- Capable of withstanding repeated autoclaving cycles.
- Ideal for high strength plus high heat applications.
- Resistant to gamma radiations.

Application

Load-bearing components, structural probes, microwave applications, replacing glass in medical lamps, reusable medical devices, manifolds resistant to daily sanitation, high voltage circuitbreaker housings, electrical insulators, electrical hardware components, integrated-circuit chip carriers for accelerated testing at high temperatures, non-combustible plenum connectors, high-temperature bobbins, coils and fuse blocks, under the hood automotive components, connector clamps for printedwiring boards, jet-engine components.

Material

PEI

AEZL1000PEIBL is a high strength amorphous thermoplastic polymer and performs in continuous use up to 170 °C paired with an excellent flame resistance (UL 94 V-0) and low smoke generation.AEZL1000PEIBL is also resistant to gamma radiation. It excels in medical reusable applications requiring repeated sterilization and dimensional stability and low creep. Good iMPact resistance, although chemical attack under stress might lead to cracking.

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Availablity		Value	Unit
Rod diameters		6-200	mm
Tube inside diameter		on request	
Tube outside diameter		on request	
Length standard		3000	mm
Sheet size		1000x2000	mm
Sheet thickness		6-100	mm
Physical properties	**Test standard**	**Value**	**Unit**
Density	ISO 1183	1,27	g/cm³
Food contact allowed		Low	[-]
Wear Resistance		High	[-]
Dimensional stability		High	[-]
Moisture absorption at 23°C, 50% RH	ISO 62	0,7	%
Water absorption at 23 °C	ISO 62	1,25	%
Flammability	UL 94	V-0	[-]
Mechanical properties	**Test standard**	**Value**	**Unit**
Hardness	ISO 868	86	Shore D
Yield stress	ISO 527	105	MPa
Elongation at break	ISO 527	30	%
Modulus of elasticity in tension	ISO 527	3200	MPa
Bending modulus	Flexural test	3300	MPa
Flexural strength	ISO 178	160	MPa
Charpy impact strength +23°C	ISO 179/1eU	No Break	kJ/m²
Charpy notched impact strength +23°C	ISO/1eA	10	kJ/m²
Ball indentation hardness	ISO 2039-1	140	MPa
Thermal properties	**Test standard**	**Value**	**Unit**
Min. working temperature		-50	°C
Max. working temperature		170	°C
Inter. working temperature		200	°C
Heat distortion temperature	Method A ISO 75	190	°C
Thermal conductivity	Method A	0,24	W/m°K
Electrical properties	**Test standard**	**Value**	**Unit**
Surface resistivity	IEC93	>10 15	Ω
Dielectric constant at 1MHZ	IEC 250	3	[-]
Volume resistivity	IEC 93	10 15	Ω.cm
Friction properties	**Test standard**	**Value**	**Unit**
Thermal coefficient of linear expansion	DIN 53752	5	1/K.10-5
Coefficient of friction		Medium	[-]

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