ZENITE® SEA 60B

Liquid Crystal Polymer

Zenite® SEA 60B is thermally conductive and electrically insulative

Product information

Resin Identification	LCP-MD		ISO 1043
Part Marking Code	>LCP-MD<		ISO 11469

Rheological properties

Molding shrinkage, parallel	0.1	%	ISO 294-4, 2577
Molding shrinkage, normal	0.3	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	1.45E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	11900	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.1	%	ISO 527-1/-2
Flexural modulus	1.45E6	psi	ISO 178
Flexural strength	15800	psi	ISO 178
Charpy impact strength, 23°C	6.18	ftlb/in²	ISO 179/1eU

Thermal properties

Temperature of deflection under load, 1.8 MPa	502	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.06	E-4/°F	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	0.122	E-4/°F	ISO 11359-1/-2
Thermal conductivity, flow	4.8	W/(m K)	ISO 22007-2
Thermal conductivity, crossflow	3.4	W/(m K)	ISO 22007-2
Thermal conductivity, through plane	0.8	W/(m K)	ISO 22007-2

Electrical properties

Volume resistivity	>1E13	Ohm.m	IEC 62631-3-1
Surface resistivity	1E14	Ohm	IEC 62631-3-2
Electric strength	1040	kV/in	IEC 60243-1

Physical/Other properties

Density	0.0614	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	302	°F
Drying Time, Dehumidified Dryer	4 - 6	h
Processing Moisture Content	≤0.01	%
Melt Temperature Optimum	662	°F
Min. melt temperature	653	°F
Max. melt temperature	671	°F
Max. screw tangential speed	0.2 - 0.3	m/s
Mold Temperature Optimum	212	°F

Revised: 2025-03-20 Source: Celanese Materials Database

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Min. mold temperature	176 °F
Max. mold temperature	266 °F

Characteristics

Processing	Injection Molding
Special characteristics	Flame retardant, Heat stabilized or stable to heat, Low Warpage

Additional information

Processing Notes

Pre-Drying

Please allow time for resin to reach drying temperature. Insure filter element is clean and there is sufficient air flow (>1 ft/sec. space velocity) across surface of pellets. Extended drying at 300°F (150°C) up to 24 hours will not harm resin. Hopper dryers with dual desiccant cartridges (one active while the other is regenerating) are highly recommended.

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