ZENITE® SEA10B

Liquid Crystal Polymer

Zenite® SEA 10B is a 30% mineral filled grade. It offers thermal conductivity, excellent mechanical strength, surface appearance, low warpage, and excellent dimensional stability. Application for this grade is for a part with thin wall design in automotive and electronics.

Product information

Resin Identification	LCP-MD30	ISO 1043
Part Marking Code	>LCP-MD30<	ISO 11469

Rheological properties

Molding shrinkage, parallel	0.1	%	ISO 294-4, 2577
Molding shrinkage, normal	0.6	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	2.03E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	20700	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.7	%	ISO 527-1/-2
Flexural modulus	1.89E6	psi	ISO 178
Flexural strength	23200	psi	ISO 178
Flexural strain at failure	2.3	%	ISO 178
Charpy impact strength, 23°C	13.8	ftlb/in^2	ISO 179/1eU
Charpy notched impact strength, 23°C	4.76	ftlb/in^2	ISO 179/1eA

Thermal properties

Temperature of deflection under load, 1.8 MPa	464	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.04	E-4/°F	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	0.333	E-4/°F	ISO 11359-1/-2
Thermal conductivity, flow	2.5	W/(m K)	ISO 22007-2

Electrical properties

Relative permittivity, 1MHz	3.63		IEC 62631-2-1
Dissipation factor, 1MHz	280	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm.m	IEC 62631-3-1
Surface resistivity	1E14	Ohm	IEC 62631-3-2
Electric strength	762	kV/in	IEC 60243-1

Physical/Other properties

Humidity absorption, 2mm	0.03	%	Sim. to ISO 62
Density	0.0592	lb/in^3	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	302	°F
Drying Time, Dehumidified Dryer	4 - 6	h
Processing Moisture Content	≤0.01	%

Revised: 2025-04-15 Source: Celanese Materials Database

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Melt Temperature Optimum	644	°F
Min. melt temperature	635	°F
Max. melt temperature	653	°F
Max. screw tangential speed	0.2 - 0.3	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	176	°F
Max. mold temperature	284	°F

Characteristics

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

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