

# 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

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

### Typical mechanical properties

Tensile modulus	10000 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	82 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.1 %	ISO 527-1/-2
Flexural modulus	10000 MPa	ISO 178
Flexural strength	110 MPa	ISO 178
Charpy impact strength, 23°C	13 kJ/m <sup>2</sup>	ISO 179/1eU
Poisson's ratio	0.34 <sup>[C]</sup>	

[C]: Calculated

### Thermal properties

Temperature of deflection under load, 1.8 MPa	261 °C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	11 E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	22 E-6/K	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	41 kV/mm	IEC 60243-1

### Physical/Other properties

Density	1700 kg/m <sup>3</sup>	ISO 1183
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### Injection

Drying Recommended	yes
Drying Temperature	150 °C
Drying Time, Dehumidified Dryer	4 - 6 h
Processing Moisture Content	≤0.01 %
Melt Temperature Optimum	350 °C
Min. melt temperature	345 °C
Max. melt temperature	355 °C

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Screw tangential speed	0.2 - 0.3 m/s
Mold Temperature Optimum	100 °C
Min. mould temperature	80 °C
Max. mould temperature	130 °C

### Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Special characteristics	Flame retardant, Heat stabilised 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.