

ZENITE® SEA20N

Liquid Crystal Polymer

ZENITE® SEA20N is a 40% mineral filled grade. It offers excellent surface appearance, low warpage, and excellent dimensional stability. Application for this grade is compact camera module, and other thin, small electronic parts

Product information

Resin Identification	LCP-MD40	ISO 1043
Part Marking Code	>LCP-MD40<	ISO 11469

Rheological properties

Moulding shrinkage, parallel	0.2 %	ISO 294-4, 2577
Moulding shrinkage, normal	0.8 %	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	8500 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	100 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	4.2 %	ISO 527-1/-2
Flexural modulus	8700 MPa	ISO 178
Flexural strength	120 MPa	ISO 178
Charpy notched impact strength, 23°C	5 kJ/m ²	ISO 179/1eA
Poisson's ratio	0.34 ^[C]	

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	330 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	220 °C	ISO 75-1/-2
Thermal conductivity, flow	1.51 W/(m K)	ISO 22007-2
Thermal conductivity, crossflow	0.77 W/(m K)	ISO 22007-2
Thermal conductivity, through plane	0.54 W/(m K)	ISO 22007-2
Effective thermal diffusivity, flow	0.000001 m ² /s	ISO 22007-4
Effective thermal diffusivity, crossflow	3.8E-7 m ² /s	ISO 22007-4
Effective thermal diffusivity, through plane	2.7E-7 m ² /s	ISO 22007-4
Specific heat capacity of melt	1.16 J/(kg K)	ISO 22007-4

Physical/Other properties

Density	1770 kg/m ³	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	335 °C
Min. melt temperature	335 °C
Max. melt temperature	345 °C
Screw tangential speed	0.2 - 0.3 m/s
Mold Temperature Optimum	100 °C
Min. mould temperature	80 °C
Max. mould temperature	140 °C

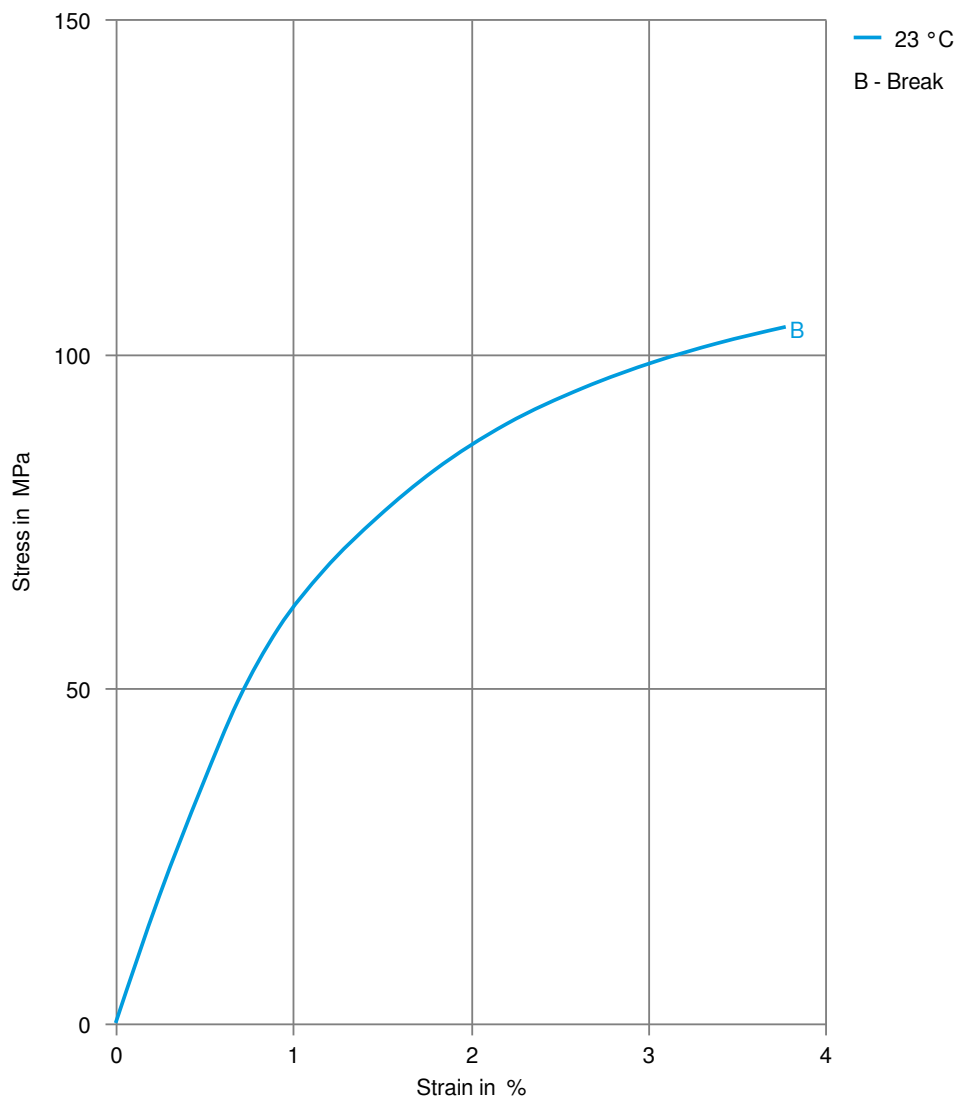
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Characteristics

Processing	Injection Moulding
Additives	Mineral Filler
Special characteristics	Flame retardant, Heat stabilised or stable to heat, High Gloss, Specialty appearance, Low wear / Low friction, High Flow, Low Warpage, Lead-free soldering resistant

Stress-strain



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Secant modulus-strain

