

ZENITE® 5333

Liquid Crystal Polymer

Product information

Resin Identification	LCP-MD31	ISO 1043
Part Marking Code	>LCP-MD31<	ISO 11469

Typical mechanical properties

Tensile modulus	9300 MPa	ISO 527-1/-2
Tensile stress at break, 50mm/min	130 MPa	ISO 527-1/-2
Tensile strain at break, 50mm/min	4.1 %	ISO 527-1/-2
Flexural modulus	9500 MPa	ISO 178
Flexural strength	140 MPa	ISO 178
Charpy notched impact strength, 23°C	11.5 kJ/m ²	ISO 179/1eA
Poisson's ratio	0.34 ^[C]	

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	320 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	260 °C	ISO 75-1/-2

Flammability

Burning Behav. at 1.5mm nom. thickn.	V-0 class	IEC 60695-11-10
Thickness tested	1.5 mm	IEC 60695-11-10
UL recognition	yes	UL 94

Physical/Other properties

Density	1620 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	345 °C
Min. melt temperature	340 °C
Max. melt temperature	350 °C
Screw tangential speed	0.2 - 0.3 m/s
Mold Temperature Optimum	100 °C
Min. mould temperature	80 °C
Max. mould temperature	120 °C

Characteristics

Processing	Injection Moulding
Special characteristics	Flame retardant, Heat stabilised or stable to heat, High Flow, Lead-free soldering resistant

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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.

Drying Conditions using Dehumidified Hopper Dryer
Dew point of dried air should be -40 °F (-40 °C) or below

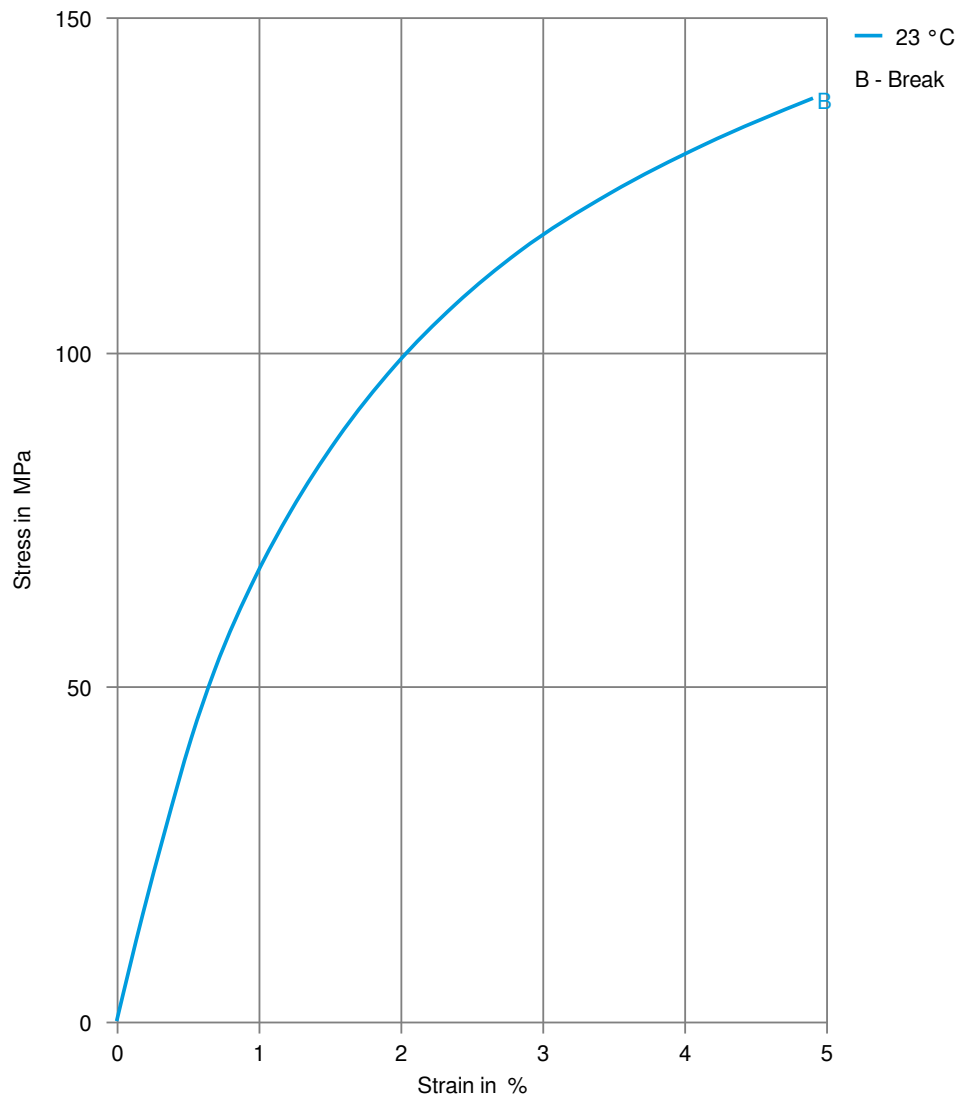
Minimum Drying Time at Temperature

6 hr

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Stress-strain



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Secant modulus-strain

