

ZENITE® 51301L

Liquid Crystal Polymer

Zenite 51301L is a 30% glass-filled LCP resin with improved toughness

Product information

Resin Identification	LCP-GF30	ISO 1043
Part Marking Code	>LCP-GF30<	ISO 11469

Rheological properties

Moulding shrinkage, parallel	0.1 %	ISO 294-4, 2577
Moulding shrinkage, normal	0.7 %	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	10000 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	145 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	3.5 %	ISO 527-1/-2
Flexural modulus	11000 MPa	ISO 178
Flexural strength	170 MPa	ISO 178
Charpy impact strength, 23°C	38 kJ/m ²	ISO 179/1eU
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	275 °C	ISO 75-1/-2

Flammability

Burning Behav. at thickness h	V-0 class	IEC 60695-11-10
Thickness tested	3 mm	IEC 60695-11-10

Electrical properties

Relative permittivity, 1MHz	3.3	IEC 62631-2-1
Dissipation factor, 1MHz	80 E-4	IEC 62631-2-1

Physical/Other properties

Density	1630 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	325 °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

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Max. mould temperature
Back pressure

120 °C
3 MPa

Characteristics

Processing

Injection Moulding

Special characteristics

Flame retardant, High impact or impact modified, Heat stabilised or stable to heat,
High Flow, Lead-free soldering resistant