

ZENITE® 650

Liquid Crystal Polymer

Zenite® 650 is designed for high dielectric constant and low dissipation factor

Product information

Resin Identification	LCP-(GF+MD)5	ISO 1043
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Part Marking Code	>LCP-(GF+MD)55<	ISO 11469

Rheological properties

Moulding shrinkage, parallel	0 %	ISO 294-4, 2577
Moulding shrinkage, normal	0.6 %	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	18000 MPa	ISO 527-1/-2
Tensile stress at break, 50mm/min	140 MPa	ISO 527-1/-2
Tensile strain at break, 50mm/min	1.5 %	ISO 527-1/-2
Flexural modulus	16000 MPa	ISO 178
Flexural strength	200 MPa	ISO 178
Charpy impact strength, 23°C	24 kJ/m ²	ISO 179/1eU
Poisson's ratio	0.33 ^[C]	

[C]: Calculated

Thermal properties

Temperature of deflection under load, 1.8 MPa	278 °C	ISO 75-1/-2
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Electrical properties

Volume resistivity	>1E13 Ohm.m	IEC 62631-3-1
Surface resistivity	1E14 Ohm	IEC 62631-3-2
Electric strength	24 kV/mm	IEC 60243-1
Relative permittivity, printed circuits and boards, 2.5 GHz	12	IEC 61189-2-721
Dissipation factor, printed circuits and boards, 2.5 GHz	80 E-4	IEC 61189-2-721

Physical/Other properties

Density	2020 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	340 °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

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Max. mould temperature	120 °C
Ejection temperature	278 °C

Characteristics

Processing

Injection Moulding

Special characteristics

Flame retardant, Heat stabilised or stable to heat, Specialty appearance, High Flow, Low Warpage, Lead-free soldering resistant
