Celanese
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ZENITE® 7755

Liquid Crystal Polymer

Zenite 7755 is a 55% glass/mineral-reinforced liquid crystal polymer resin for injection molding. It has good impact resistance, excellent temperature resistance, and is suitable for applications in diverse industries.

Product information

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

Rheological properties

Moulding shrinkage, parallel	0	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.1	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	17700	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	100	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	0.7	%	ISO 527-1/-2
Flexural modulus	18500	MPa	ISO 178
Flexural strength	160	MPa	ISO 178
Charpy notched impact strength, 23°C	5	kJ/m²	ISO 179/1eA
Poisson's ratio	0.33[C]		

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	350	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	295	°C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	9	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	39	E-6/K	ISO 11359-1/-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

Humidity absorption, 2mm	1.1	%	Sim. to ISO 62
Density	1890	kg/m³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	150	°C
Drying Time, Dehumidified Dryer	4 - 6	h
Processing Moisture Content	≤0.01	%
Melt Temperature Optimum	370	°C
Min. melt temperature	365	°C
Max. melt temperature	375	°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	120	°C
Back pressure	3	MPa

Characteristics

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