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

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

Typical mechanical properties

Tensile modulus	1.45E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	21000	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	3.5	%	ISO 527-1/-2
Flexural modulus	1.6E6	psi	ISO 178
Flexural strength	24700	psi	ISO 178
Charpy impact strength, 23°C	18.1	ftlb/in^2	ISO 179/1eU

Thermal properties

Melting temperature, 10°C/min	608	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	527	°F	ISO 75-1/-2

Flammability

Burning Behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.1181	in	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	0.0588	lb/in^3	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	302	°F
Drying Time, Dehumidified Dryer	4 - 6	h
Processing Moisture Content	≤0.01	%
Melt Temperature Optimum	635	°F
Min. melt temperature	617	°F
Max. melt temperature	653	°F
Max. screw tangential speed	0.2 - 0.3	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	176	°F
Max. mold temperature	248	°F
Back pressure	435	psi

Revised: 2025-03-20 Source: Celanese Materials Database

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Characteristics

Processing	Injection Molding
Special characteristics	Flame retardant, High impact or impact modified, Heat stabilized or stable to heat, High Flow, Lead-free soldering resistant

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