ZENITE® 5145L R1 (PRELIMINARY)

Liquid Crystal Polymer

Product information

Resin Identification	LCP-GF45		ISO 1043
Part Marking Code	>LCP-GF45<		ISO 11469

Typical mechanical properties

Tensile modulus	2.39E6	psi	ISO 527-1/-2
Tensile stress at break, 50mm/min	18600	psi	ISO 527-1/-2
Tensile strain at break, 50mm/min	2	%	ISO 527-1/-2
Flexural modulus	2.48E6	psi	ISO 178
Flexural strength	30200	psi	ISO 178
Charpy impact strength, 23°C	8.13	ftlb/in^2	ISO 179/1eU
Charpy notched impact strength, 23°C	7.33	ftlb/in^2	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	604	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	556	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	581	°F	ISO 75-1/-2

Flammability

Burning Behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.0157	in	IEC 60695-11-10

Electrical properties

Relative permittivity, 2GHz	4.67		IEC 61189-2-721
Dissipation factor, 2GHz	62	E-4	IEC 61189-2-721
Volume resistivity	1E13	Ohm.m	IEC 62631-3-1
Surface resistivity	1E15	Ohm	IEC 62631-3-2

Physical/Other properties

Humidity absorption, 2mm	0.03	%	Sim. to ISO 62
Density	0.0628	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

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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, Low Warpage, Improved weld line, Lead-free soldering resistant

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

The above data are preliminary and are subject to change as additional data are developed on subsequent lots.
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