

ZENITE® 251

This LCP is designed for low dielectric constant (Dk), excellent flow characteristics & mechanical strength and high temperature resistance. For use in injection molded electronics applications for thin walls.

Rheological properties

Moulding shrinkage range, parallel	0.1 %	ISO 294-4, 2577
Moulding shrinkage range, normal	0.5 %	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	7400 MPa	ISO 527-1/-2
Stress at break, 5mm/min	100 MPa	ISO 527-1/-2
Strain at break, 5mm/min	1.9 %	ISO 527-1/-2
Flexural Modulus	7000 MPa	ISO 178
Flexural Strength	139 MPa	ISO 178
Charpy impact strength, 23°C	6.3 kJ/m²	ISO 179/1eU

Thermal properties

Melting temperature, 10°C/min	350 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	290 °C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	15 E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	50 E-6/K	ISO 11359-1/-2

Flammability

Burning Behav. at 1.5mm nom. thickn.	V-0 class	UL 94
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Electrical properties

Relative permittivity, 1MHz	2.7	IEC 62631-2-1
Dissipation factor, 1MHz	70 E-4	IEC 62631-2-1
Arc Resistance	127 s	Internal
Dielectric Constant, 10 GHz	3	ASTM D 2520 B / IPC-TM-650
Dissipation Factor, 10 GHz	0.0029 E-4	ASTM D 2520 B / IPC-TM-650

Injection

Drying Temperature	150 °C	
Drying Time, Dehumidified Dryer	4 h	
Processing Moisture Content	0.01 %	
Melt Temperature Optimum	367 °C	Internal
Max. mould temperature	100 °C	
Back pressure	3 MPa	

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