DuPont™ Zenite® LCP

liquid crystal polymer resin

Zenite® ZE55201 BK010

Zenite® ZE55201 BK010 is a 50% glass/mineral reinforced, lubricated, black liquid crystal polymer resin designed for ultra flatness.

Property	Test Method	Units	Value
Identification			
Resin Identification	ISO 1043		LCP-(GF+MD)50
Part Marking Code	ISO 11469		>LCP-(GF+MD)50<
Mechanical			
Stress at Break	ISO 527	MPa (kpsi)	88 (12.8)
Strain at Break	ISO 527	%	1.4
Tensile Modulus	ISO 527	MPa (kpsi)	15800 (2290)
Flexural Modulus	ISO 178	MPa (kpsi)	12500 (1810)
Flexural Strength	ISO 178	MPa (kpsi)	165 (23.9)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m^2	3.6

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.
ISO Mechanical properties measured at 4.0mm, ISO Electrical properties measured at 2.0mm, and all ASTM properties measured at 3.2mm.
Test temperatures are 23°C unless otherwise stated.

During molding, use protective equipment and clothing. Skin contact with molten Zenite® resins can cause severe burns. Be particularly alert during purging.

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Property	Test Method	Units	Value
Thermal			
Deflection Temperature	ISO 75-1/-2 1993/N_2	°C (°F)	
1.80MPa			290 (554)
CLTE, Parallel	ISO 11359-1/-2	E-4/C (E-4/F)	
160 - 250°C (320 - 480°F), 4mm			0.19 (0.11)
-40 - 23°C (-40 - 73°F), 4mm			0.13 (0.07)
23 - 55°C (73 - 130°F), 4mm			0.15 (0.08)
55 - 160°C (130 - 320°F), 4mm			0.20 (0.11)
CLTE, Normal	ISO 11359-1/-2	E-4/C (E-4/F)	
160 - 250°C (320 - 480°F), 4mm			0.37 (0.21)
-40 - 23°C (-40 - 73°F), 4mm			0.25 (0.14)
23 - 55°C (73 - 130°F), 4mm			0.27 (0.15)
55 - 160°C (130 - 320°F), 4mm			0.34 (0.19)
Electrical			
CTI	IEC 60112	V	175
Flammability			
Flammability Classification	IEC 60695-11-10		
0.8mm			V-0
Flammability Classification	UL94		
0.8mm			V-0
Temperature Index			
RTI, Electrical	UL 746B	°C	
0.8mm			130
RTI, Impact	UL 746B	°C	
0.8mm			130
RTI, Strength	UL 746B	°C	
0.8mm			130
Other			
Density	ISO 1183	kg/m^3 (g/cm^3)	1850 (1.85)

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Property	Test Method	Units	Value
Processing			
Melt Temperature Range		°C (°F)	330-350 (625-660)
Melt Temperature Optimum		°C (°F)	335 (635)
Mold Temperature Range		°C (°F)	40-150 (105-300)
Mold Temperature Optimum		°C (°F)	80 (175)
Drying Time, Dehumidified Dryer		h	3
Drying Temperature		°C (°F)	150 (304)
Processing Moisture Content		%	<0.01

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Test temperatures are 23°C unless otherwise stated.

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