



Zenite® ZE55201

Celanese Corporation - Liquid Crystal Polymer

Sunday, November 3, 2019

General Information

Product Description

Zenite® ZE55201 is a 50% mineral/glass fiber reinforced liquid crystal polymer for injection molding. and It is specifically suitable for applications requiring ultra flatness.

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • Asia Pacific • Latin America • North America
Filler / Reinforcement	• Glass\Mineral, 50% Filler by Weight
RoHS Compliance	• Contact Manufacturer
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.85	g/cm ³	ISO 1183
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2.29E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	12800	psi	ISO 527-2/1A/5
Tensile Strain (Break)	1.4	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.81E+6	psi	ISO 178
Flexural Stress (73°F)	23900	psi	ISO 178
Compressive Stress (1% Strain)	3090	psi	ISO 604
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	1.7	ft-lb/in ²	ISO 179/1eA
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	572	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	554	°F	ISO 75-2/A
Melting Temperature ²	635	°F	ISO 11357-3
CLTE - Flow	8.3E-6	in/in/°F	ISO 11359-2
CLTE - Transverse	1.5E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Electric Strength	940	V/mil	IEC 60243-1
Relative Permittivity (1 MHz)	4.00		IEC 60250
Dissipation Factor			IEC 60250
100 Hz	0.031		
1 MHz	0.031		
Comparative Tracking Index	175	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.031 in	V-0		
0.06 in	V-0		
Oxygen Index	41	%	ISO 4589-2

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Fill Analysis	Nominal Value	Unit	Test Method
Melt Density	1.62	g/cm ³	Internal Method
Melt Thermal Conductivity	2.8	Btu·in/hr/ft ² /°F	Internal Method
Ejection Temperature	518	°F	
Specific Heat Capacity of Melt	0.359	Btu/lb/°F	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	302	°F
Drying Time	3.0	hr
Suggested Max Moisture	0.010	%
Hopper Temperature	68 to 86	°F
Rear Temperature	608 to 626	°F
Middle Temperature	635 to 653	°F
Front Temperature	635 to 653	°F
Nozzle Temperature	635 to 653	°F
Processing (Melt) Temp	626 to 662	°F
Mold Temperature	176 to 248	°F
Back Pressure	< 435	psi

Injection Notes

Feeding zone temperature: 40 to 60°C
 Zone4 temperature: 335 to 345°C

Notes

¹ Typical properties: these are not to be construed as specifications.

² 10°C/min