



Vectra® FIT30

Celanese Corporation - Liquid Crystal Polymer

Sunday, November 3, 2019

General Information

Product Description

43% glass and mineral reinforced grade. Glass and mineral filled grade, high flow and low warpage. Chemical abbreviation according to ISO 1043-1 : LCP Inherently flame retardant

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • Asia Pacific • Latin America • North America
Filler / Reinforcement	• Glass/Mineral, 43% Filler by Weight
Features	• Flame Retardant • High Flow • Low Warpage
RoHS Compliance	• Contact Manufacturer
Resin ID (ISO 1043)	• LCP

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.77	g/cm ³	ISO 1183
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.89E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	18900	psi	ISO 527-2/1A/5
Tensile Strain (Break)	1.7	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.84E+6	psi	ISO 178
Flexural Stress (73°F)	24700	psi	ISO 178
Flexural Strain at Break	1.9	%	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	2.8	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	12	ft·lb/in ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	547	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	504	°F	ISO 75-2/A
Melting Temperature ²	622	°F	ISO 11357-3
CLTE - Flow	5.0E-6	in/in/°F	ISO 11359-2
CLTE - Transverse	2.1E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+16	ohms	IEC 60093
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	302 to 338	°F
Drying Time	6.0	hr
Suggested Max Moisture	0.010	%
Rear Temperature	599 to 617	°F
Middle Temperature	617 to 635	°F
Front Temperature	626 to 662	°F

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Injection	Nominal Value	Unit
Nozzle Temperature	626 to 644	°F
Processing (Melt) Temp	635 to 653	°F
Mold Temperature	176 to 266	°F
Injection Rate	Moderate-Fast	

Injection Notes

Zone4 temperature: 330 to 350°C

Notes

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

² 10°C/min