



Vectra® E115i

Celanese Corporation - Liquid Crystal Polymer

Sunday, November 3, 2019

General Information

Product Description

15% glass reinforced Chemical abbreviation according to ISO 1043-1 : LCP Inherently flame retardant. FDA compliant UL-Listing V-0 black at 0.75mm thickness per UL 94 flame testing. UL = Underwriters Laboratories (USA)

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • Asia Pacific • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight
Agency Ratings	• FDA Unspecified Rating
RoHS Compliance	• Contact Manufacturer
Resin ID (ISO 1043)	• LCP

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.46	g/cm ³	ISO 1183
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2.03E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	25400	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.3	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	2.03E+6	psi	ISO 178
Flexural Stress (73°F)	30500	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength (73°F)	19	ft·lb/in ²	ISO 180/1A
Unnotched Izod Impact Strength (73°F)	48	ft·lb/in ²	ISO 180/1U
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	43		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	568	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	486	°F	ISO 75-2/A
Vicat Softening Temperature	396	°F	ISO 306/B50
Melting Temperature ²	635	°F	ISO 11357-3
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+16	ohms·cm	IEC 60093
Electric Strength	840	V/mil	IEC 60243-1
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.030 in)	V-0		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	302	°F
Drying Time	6.0	hr
Suggested Max Moisture	0.010	%

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Injection	Nominal Value	Unit
Hopper Temperature	68 to 86	°F
Rear Temperature	599 to 635	°F
Middle Temperature	608 to 644	°F
Front Temperature	617 to 671	°F
Nozzle Temperature	635 to 662	°F
Processing (Melt) Temp	635 to 671	°F
Mold Temperature	176 to 248	°F
Injection Rate	Fast	
Back Pressure	< 435	psi

Injection Notes

Feeding zone temperature: 60 to 80°C

Zone4 temperature: 330 to 360°C

Hot runner temperature: 335 to 345°C

Notes

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

² 10°C/min