VECTRA® E115i

Liquid Crystal Polymer

Celanese Corporation

Message:

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 Information			
UL YellowCard	E83005-100676850		
Filler / Reinforcement	Glass fiber reinforced material, 15% filler by weight		
Features	Flame retardancy		
Agency Ratings	FDA not rated		
RoHS Compliance	Contact manufacturer		
Resin ID (ISO 1043)	LCP		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.46	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Vertical flow direction	0.50	%	ISO 294-4
Flow direction	-0.20	%	ISO 294-4
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	43		ISO 2039-2
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	14000	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	175	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.3	%	ISO 527-2/1A/5
Flexural Modulus (23°C)	14000	MPa	ISO 178
Flexural Stress (23°C)	210	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	40	kJ/m²	ISO 180/1A
Unnotched Izod Impact Strength (23°C)	100	kJ/m²	ISO 180/1U
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, not annealed	298	°C	ISO 75-2/B
1.8 MPa, not annealed	252	°C	ISO 75-2/A
Vicat Softening Temperature	202	°C	ISO 306/B50
Melting Temperature [1]	335	°C	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
Dielectric Strength	33	kV/mm	IEC 60243-1
Relative Permittivity (2.05 GHz)	3.94		Internal method
Dissipation Factor (2.05 GHz)	5.0E-3		Internal method
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.750 mm)	V-0		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	150	°C	
Drying Time	6.0	hr	
Suggested Max Moisture	0.010	%	
Hopper Temperature	20.0 - 30.0	°C	
Rear Temperature	315 - 335	°C	
Middle Temperature	320 - 340	°C	
Front Temperature	325 - 355	°C	
Nozzle Temperature	335 - 350	°C	
Processing (Melt) Temp	335 - 355	°C	
Mold Temperature	80.0 - 120	°C	
Injection Pressure	50.0 - 150	MPa	
Injection Rate	Fast		
Holding Pressure	50.0 - 150	MPa	
Back Pressure	0.00 - 3.00	MPa	
Injection instructions			
Manifold Temperature: 335 to 345°CZone 4 Temperature: 330 to 360°CFeed Temperature: 60 to 80°C			
NOTE			
1.	10°C/min		

Recommended distributors for this material

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