VECTRA® V143XL

Liquid Crystal Polymer

Celanese Corporation

Message:

LCP/PPS blend. Maintains most of the characteristics of E130i with improved weldline strength and flatness in certain geometries. 40% glass reinforced.
Chemical abbreviation according to ISO 1043-1 : LCP
Inherently flame retardant.

General Information			
UL YellowCard	E83005-272087		
Filler / Reinforcement	Glass fiber reinforced material, 40% filler by weight		
Features	Flame retardancy		
RoHS Compliance	Contact manufacturer		
Resin ID (ISO 1043)	LCP		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.67	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Vertical flow direction	0.60	%	ISO 294-4
Flow direction	0.30	%	ISO 294-4
Water Absorption			ISO 62
Saturated, 23°C	0.044	%	ISO 62
Equilibrium, 23°C, 50% RH	0.015	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	16000	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	150	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	1.3	%	ISO 527-2/1A/5
Flexural Modulus (23°C)	15700	MPa	ISO 178
Flexural Stress (23°C)	225	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	9.0	kJ/m²	ISO 180/1A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (1.8 MPa, Unannealed)	260	°C	ISO 75-2/A
Melting Temperature [1]	335	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow	8.0E-6	cm/cm/°C	ISO 11359-2
Lateral	3.1E-5	cm/cm/°C	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+17	ohms	IEC 60093
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093
Dielectric Strength	33	kV/mm	IEC 60243-1

Relative Permittivity		
1 MHz	3.50	IEC 60250
2.05 GHz	4.30	Internal method
Dissipation Factor		
1 MHz	0.016	IEC 60250
2.05 GHz	7.0E-3	Internal method

Injection	Nominal Value	Unit
Drying Temperature	150	°C
Drying Time	4.0 - 24	hr
Suggested Max Moisture	0.010	%
Hopper Temperature	20.0 - 30.0	°C
Rear Temperature	315 - 325	°C
Middle Temperature	320 - 330	°C
Front Temperature	325 - 335	°C
Nozzle Temperature	335 - 345	°C
Processing (Melt) Temp	335 - 345	°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 340°CFeed Temperature: 60 to 80°C

NOTE	
1.	10°C/min

Recommended distributors for this material

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