VECTRA® E845i LDS

Liquid Crystal Polymer

Celanese Corporation

Message:

LDS capable LCP with higher DTUL and impact
Chemical abbreviation according to ISO 1043-1: LCP
Inherently flame retardant
UL-Listing V-0 in black at 0.25mm thickness per UL 94 flame testing.
UL = Underwriters Laboratories (USA)

General Information			
Filler / Reinforcement	Glass \Mineral		
Features	Impact resistance, good Flame retardancy		
Resin ID (ISO 1043)	LCP		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.77	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Vertical flow direction	0.23	%	ISO 294-4
Flow direction	0.0	%	ISO 294-4
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	14000	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	130	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	1.7	%	ISO 527-2/1A/5
Flexural Modulus (23°C)	14000	MPa	ISO 178
Flexural Stress (23°C)	180	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	20	kJ/m²	ISO 179/1eA
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (1.8 MPa, Unannealed)	255	°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	5.8E-5	cm/cm/°C	ISO 11359-2
Electrical	**Nominal Value**		**Test Method**
Relative Permittivity			
1 MHz	3.87		IEC 60250
2.05 GHz	4.35		IPC TM-650 2.5.5.13
Dissipation Factor			
1 MHz	0.037		IEC 60250

2.05 GHz	5.0E-3	IPC TM-650 2.5.5.13

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 - 325	°C
Middle Temperature	320 - 330	°C
Front Temperature	325 - 335	°C
Nozzle Temperature	340 - 350	°C
Processing (Melt) Temp	340 - 350	°C
Mold Temperature	80.0 - 120	°C
Injection Pressure	50.0 - 150	MPa
Injection Rate	Moderate	
Holding Pressure	50.0 - 150	MPa

Injection instructions
Manifold Temperature: 340 to 350°CZone 4 Temperature: 335 to 345°CFeed Temperature: 60 to 80°C

NOTE	
1.	10°C/min

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