VECTRA® S471

Liquid Crystal Polymer

Celanese Corporation

Message:

High flow, High Heat resistance, Low Warpage, for Thick Walled (>0.2mm) or thin (<0.2mm)& Thick Walled Parts.
Chemical abbreviation according to ISO 1043-1 : LCP
Inherently flame retardant
UL-Listing V-0 in natural and black at 0.4mm thickness per UL 94 flame testing.
Relative-Temperature-Index (RTI) according to UL 746B: electricals 130°C, mechanicals 130°C.
UL = Underwriters Laboratories (USA)

General Information			
UL YellowCard	E83005-100119931	E83005-100119932	
Features	Low warpage High liquidity Heat resistance, high		
RoHS Compliance	Contact manufacturer		
Resin ID (ISO 1043)	LCP		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.76	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Vertical flow direction	0.50	%	ISO 294-4
Flow direction	0.20	%	ISO 294-4
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	12000	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	120	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	1.4	%	ISO 527-2/1A/5
Flexural Modulus (23°C)	12000	MPa	ISO 178
Flexural Stress (23°C)	185	MPa	ISO 178
Flexural Strain at Break	2.0	%	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	6.0	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	10	kJ/m²	ISO 179/1eU
Notched Izod Impact (23°C)	8.0	kJ/m²	ISO 180/1A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
1.8 MPa, not annealed	315	°C	ISO 75-2/A
8.0 MPa, not annealed	271	°C	ISO 75-2/C
Melting Temperature [1]	350	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow	8.0E-6	cm/cm/°C	ISO 11359-2

Lateral	1.7E-5	cm/cm/°C	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+11	ohms	IEC 60093
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093
Relative Permittivity (1 MHz)	4.00		IEC 60250
Dissipation Factor (1 MHz)	7.0E-3		IEC 60250
Comparative Tracking Index	150	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating	V-0		UL 94
Injection	**Nominal Value**	**Unit**	
Drying Temperature	150 - 170	°C	
Drying Time	6.0	hr	
Hopper Temperature	20.0 - 40.0	°C	
Rear Temperature	330 - 350	°C	
Middle Temperature	340 - 360	°C	
Front Temperature	345 - 365	°C	
Nozzle Temperature	355 - 370	°C	
Processing (Melt) Temp	360 - 375	°C	
Mold Temperature	80.0 - 120	°C	
Injection Pressure	50.0 - 150	MPa	
Injection Rate	Moderate		
Holding Pressure	50.0 - 150	MPa	
Back Pressure	0.00 - 3.00	MPa	
Injection instructions			
Manifold Temperature: 355 to 370°CZone 4 Temperature: 355 to 370°CFeed Temperature: 60 to 80°C			
NOTE			
1.	10°C/min		

Recommended distributors for this material

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