

VECTRA® S540

Liquid Crystal Polymer
Celanese Corporation

Message:

40% mineral filled grade, low warpage high flow.
Chemical abbreviation according to ISO 1043-1 : LCP
Inherently flame retardant
FDA compliant
UL-Listing V-0 in natural and black at .4mm thickness per UL 94 flame testing.
UL = Underwriters Laboratories (USA)

General Information			
UL YellowCard	E83005-100470168		
Filler / Reinforcement	Mineral filler, 40% filler by weight		
Features	Low warpage		
	High liquidity		
	Flame retardancy		
RoHS Compliance	Contact manufacturer		
Resin ID (ISO 1043)	LCP		
Physical	Nominal Value	Unit	Test Method
Density	1.74	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Vertical flow direction	0.90	%	ISO 294-4
Flow direction	0.10	%	ISO 294-4
Water Absorption (Equilibrium, 23°C, 50% RH)	3.0E-3	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	7500	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	100	MPa	ISO 527-2/1A/50
Tensile Strain (Break)	3.0	%	ISO 527-2/1A/50
Flexural Modulus (23°C)	9200	MPa	ISO 178
Flexural Stress (23°C)	130	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	5.0	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	13	kJ/m ²	ISO 179/1eU
Notched Izod Impact (23°C)	3.5	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength (23°C)	13	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	275	°C	ISO 75-2/A
Melting Temperature ¹	350	°C	ISO 11357-3

Injection	Nominal Value	Unit
Drying Temperature	150	°C
Drying Time	6.0	hr
Suggested Max Moisture	0.010	%
Hopper Temperature	20.0 - 40.0	°C
Rear Temperature	345 - 355	°C
Middle Temperature	355 - 365	°C
Front Temperature	365 - 375	°C
Nozzle Temperature	365 - 375	°C
Processing (Melt) Temp	365 - 375	°C
Mold Temperature	80.0 - 140	°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: 365 to 375°C Zone 4 Temperature: 365 to 375°C Feed Temperature: 60 to 80°C

NOTE

1. 10°C/min

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