



Vectra® S540

Celanese Corporation - Liquid Crystal Polymer

Sunday, November 3, 2019

General Information

Product Description

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

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Mineral, 40% Filler by Weight		
Features	• Flame Retardant	• High Flow	• Low Warpage
Agency Ratings	• FDA Unspecified Rating		
RoHS Compliance	• Contact Manufacturer		
Resin ID (ISO 1043)	• LCP		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.74	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.90	%	
Flow	0.10	%	
Water Absorption (Equilibrium, 73°F, 50% RH)	3.0E-3	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.09E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	14500	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.0	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.33E+6	psi	ISO 178
Flexural Stress (73°F)	18900	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	2.4	ft-lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	6.2	ft-lb/in ²	ISO 179/1eU
Notched Izod Impact Strength (73°F)	1.7	ft-lb/in ²	ISO 180/1A
Unnotched Izod Impact Strength (73°F)	6.2	ft-lb/in ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	527	°F	ISO 75-2/A
Melting Temperature ²	662	°F	ISO 11357-3

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	302	°F
Drying Time	6.0	hr
Suggested Max Moisture	0.010	%
Hopper Temperature	68 to 104	°F
Rear Temperature	653 to 671	°F
Middle Temperature	671 to 689	°F

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Injection	Nominal Value	Unit
Front Temperature	689 to 707	°F
Nozzle Temperature	689 to 707	°F
Processing (Melt) Temp	689 to 707	°F
Mold Temperature	176 to 284	°F
Injection Rate	Fast	
Back Pressure	< 435	psi

Injection Notes

Feeding zone temperature: 60 to 80°C

Zone4 temperature: 365 to 375°C

Hot runner temperature: 365 to 375°C

Notes

¹ Typical properties: these are not to be construed as specifications.

² 10°C/min