



Vectra® A440

Celanese Corporation - Liquid Crystal Polymer

Sunday, November 3, 2019

General Information

Product Description

All the characteristics of A130 with some added lubricity and flexibility. Suitable for applications requiring snap fit. Glass/PTFE filled. Chemical abbreviation according to ISO 1043-1 : LCP Inherently flame retardant

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass\PTFE		
Additive	• Lubricant		
Features	• Flame Retardant	• Good Flexibility	• Lubricated
RoHS Compliance	• Contact Manufacturer		
Resin ID (ISO 1043)	• LCP		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.65	g/cm ³	ISO 1183
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2.32E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	26100	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.6	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	2.18E+6	psi	ISO 178
Flexural Stress (73°F)	35500	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength (73°F)	18	ft·lb/in ²	ISO 179/1eU
Notched Izod Impact Strength (73°F)	10	ft·lb/in ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	446	°F	ISO 75-2/A
Melting Temperature ²	536	°F	ISO 11357-3
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	1.0E+14	ohms·cm	IEC 60093
Electric Strength	740	V/mil	IEC 60243-1
Relative Permittivity (1 MHz)	2.80		IEC 60250
Dissipation Factor (1 MHz)	7.0E-3		IEC 60250
Arc Resistance	180	sec	Internal Method
Comparative Tracking Index	175	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.04 in		V-0	
0.06 in		V-0	

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Processing Information

Injection	Nominal Value	Unit
Drying Temperature	302	°F
Drying Time	4.0 to 6.0	hr
Suggested Max Moisture	0.010	%
Hopper Temperature	68 to 86	°F
Rear Temperature	518 to 536	°F
Middle Temperature	527 to 545	°F
Front Temperature	536 to 554	°F
Nozzle Temperature	554 to 572	°F
Processing (Melt) Temp	545 to 563	°F
Mold Temperature	176 to 248	°F
Injection Rate	Fast	
Back Pressure	< 435	psi

Injection Notes

Feeding zone temperature: 60 to 80°C
Zone4 temperature: 285 to 295°C
Hot runner temperature: 285 to 295°C

Notes

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

² 10°C/min