



Vectra® E820iPd

Celanese Corporation - Liquid Crystal Polymer

Sunday, November 3, 2019

General Information

Product Description

Catalytically modified E820i Chemical abbreviation according to ISO 1043-1 : LCP Inherently flame retardant UL-Listing V-0 in natural at 1.5mm thickness per UL 94 flame testing. Relative-Temperature-Index (RTI) according to UL 746B: electrical 130°C, mechanical 130°C at 1.5mm. UL = Underwriters Laboratories (USA)

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Flame Retardant		
RoHS Compliance	• Contact Manufacturer		
Resin ID (ISO 1043)	• LCP		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.79	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	1.2	%	
Flow	0.40	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.16E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	12900	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.6	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.28E+6	psi	ISO 178
Flexural Stress (73°F)	17400	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	1.9	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	14	ft·lb/in ²	ISO 179/1eU
Notched Izod Impact Strength (73°F)	1.9	ft·lb/in ²	ISO 180/1A
Unnotched Izod Impact Strength (73°F)	13	ft·lb/in ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	491	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	419	°F	ISO 75-2/A
Heat Deflection Temperature (1160 psi, Unannealed)	246	°F	ISO 75-2/C
Melting Temperature	635	°F	
CLTE - Flow	1.3E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	2.7E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Dissipation Factor (1 MHz)	0.016		IEC 60250
Comparative Tracking Index	175	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating	V-0		UL 94

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Processing Information

Injection	Nominal Value	Unit
Drying Temperature	338	°F
Drying Time	4.0 to 6.0	hr
Suggested Max Moisture	0.010	%
Hopper Temperature	68 to 86	°F
Rear Temperature	599 to 617	°F
Middle Temperature	608 to 626	°F
Front Temperature	617 to 635	°F
Nozzle Temperature	635 to 653	°F
Processing (Melt) Temp	635 to 653	°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: 330 to 340°C

Hot runner temperature: 335 to 345°C

Notes

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