



Vectra® E488i

Celanese Corporation - Liquid Crystal Polymer

Sunday, November 3, 2019

General Information

Product Description

Ultra low warp

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Low Warpage		
RoHS Compliance	• Contact Manufacturer		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.77	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.40	%	
Flow	0.10	%	
Water Absorption (Saturation, 73°F)	5.0E-3	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.89E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	16000	psi	ISO 527-2/1A/5
Tensile Strain (Break)	1.5	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.89E+6	psi	ISO 178
Flexural Stress (73°F)	23200	psi	ISO 178
Flexural Strain at Break	1.8	%	ISO 178
Compressive Modulus	1.60E+6	psi	ISO 604
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	8.6	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)	4.3	ft-lb/in ²	ISO 180/1A
Unnotched Izod Impact Strength (73°F)	13	ft-lb/in ²	ISO 180/1U
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	54		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	500	°F	ISO 75-2/A
Vicat Softening Temperature	392	°F	ISO 306/B50
Melting Temperature ²	635	°F	ISO 11357-3
CLTE - Flow	4.4E-6	in/in/°F	ISO 11359-2
CLTE - Transverse	2.3E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+17	ohms	IEC 60093
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093
Electric Strength	1400	V/mil	IEC 60243-1
Relative Permittivity (1 MHz)	4.24		IEC 60250
Dissipation Factor (1 MHz)	0.045		IEC 60250

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Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index	175	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.0059 in)	V-0		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	302	°F
Drying Time	6.0	hr
Suggested Max Moisture	0.010	%
Rear Temperature	599 to 617	°F
Middle Temperature	617 to 635	°F
Front Temperature	635 to 653	°F
Nozzle Temperature	635 to 653	°F
Processing (Melt) Temp	644 to 671	°F
Mold Temperature	176 to 248	°F
Injection Rate	Fast	

Injection Notes

Zone4 temperature: 340 to 360°C

Notes

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

² 10°C/min