



CoolPoly® E5501

Celanese Corporation - Liquid Crystal Polymer

Sunday, November 3, 2019

General Information

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.73	g/cm ³	ISO 1183
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	899000	psi	ISO 527-2/1A
Tensile Stress (Break)	4640	psi	ISO 527-2/1A/5
Tensile Strain (Break)	0.65	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.41E+6	psi	ISO 178
Flexural Stress (73°F)	8120	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	1.2	ft-lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	1.9	ft-lb/in ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	455	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	358	°F	ISO 75-2/A
Thermal Conductivity			ASTM E1461
-- 2	31	Btu-in/hr/ft ² /°F	
-- 3	150	Btu-in/hr/ft ² /°F	
-- 4	240	Btu-in/hr/ft ² /°F	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	0.026	ohms-cm	IEC 60093

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	266 to 284	°F
Drying Time	2.0 to 4.0	hr
Rear Temperature	610	°F
Middle Temperature	669	°F
Front Temperature	685	°F
Nozzle Temperature	691	°F
Processing (Melt) Temp	675 to 685	°F
Mold Temperature	235 to 246	°F

Injection Notes

Feeding zone temperature: 40 to 47°C

CoolPoly® E5501

Celanese Corporation - Liquid Crystal Polymer

Notes

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

² Thruplane

³ Crossflow

⁴ Flow