



CoolPoly® E2

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
RoHS Compliance	• RoHS Compliant		

ASTM & ISO Properties ¹

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3.05E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	11700	psi	ISO 527-2/1A/5
Tensile Strain (Break)	0.40	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	5.95E+6	psi	ISO 178
Flexural Stress (73°F)	23200	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength (73°F)	4.0	ft·lb/in ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	> 572	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	514	°F	ISO 75-2/A
CLTE - Flow	4.4E-6	in/in/°F	ISO 11359-2
CLTE - Transverse	5.0E-6	in/in/°F	ISO 11359-2
Specific Heat	0.215	Btu/lb/°F	ASTM E1461
Thermal Conductivity			ASTM E1461
-- ²	25	Btu·in/hr/ft ² /°F	
-- ³	110	Btu·in/hr/ft ² /°F	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	0.10	ohms·cm	IEC 60093
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	V-0		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	266 to 284	°F
Drying Time	2.0 to 4.0	hr
Rear Temperature	691	°F
Middle Temperature	711	°F
Front Temperature	714	°F
Nozzle Temperature	680	°F
Processing (Melt) Temp	700 to 711	°F
Mold Temperature	275 to 286	°F

Injection Notes

Feeding zone temperature: 40 to 47°C

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Notes

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

² Thruplane

³ Flow