

Technical Information



TRINSEO CELEX™ 3600-20

Polycarbonate Resin

Overview

Trinseo CELEX™ 3600-20 contains non-chlorinated, non-brominated & phosphate flame retardant and suitable for use by injection molding applications in the computer, electronics, electrical, and information technology equipment markets.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.20 g/cm ³	1.20 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	20 g/10 min	20 g/10 min	ASTM D1238
Molding Shrinkage - Flow	5.0E-3 to 7.0E-3 in/in	0.50 to 0.70 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus ¹	319000 psi	2200 MPa	ASTM D638
Tensile Strength ²			ASTM D638
Yield	8700 psi	60.0 MPa	
Break	8410 psi	58.0 MPa	
Tensile Elongation ²			ASTM D638
Yield	5.0 %	5.0 %	
Break	110 %	110 %	
Flexural Modulus	348000 psi	2400 MPa	ASTM D790
Flexural Strength	13600 psi	94.0 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	13 ft-lb/in	680 J/m	ASTM D256
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed	252 °F	122 °C	
Vicat Softening Temperature	298 °F	148 °C	ASTM D1525 ³
RTI Elec	257 °F	125 °C	UL 746B
RTI Imp	257 °F	125 °C	UL 746B
RTI Str	257 °F	125 °C	UL 746B
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Volume Resistivity	1.0E+19 ohms-cm	1.0E+19 ohms-cm	ASTM D257 IEC 60093
Dielectric Strength	640 V/mil	25 kV/mm	ASTM D149
Comparative Tracking Index (CTI)	PLC 3	PLC 3	UL 746A
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ⁴ (0.06 in (1.5 mm), All colors)	V-0	V-0	UL 94
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	248 °F	120 °C	
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr	
Rear Temperature	500 to 536 °F	260 to 280 °C	
Middle Temperature	518 to 554 °F	270 to 290 °C	
Front Temperature	518 to 554 °F	270 to 290 °C	
Nozzle Temperature	536 to 572 °F	280 to 300 °C	
Processing (Melt) Temp	500 to 572 °F	260 to 300 °C	
Mold Temperature	176 to 248 °F	80 to 120 °C	

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ 0.039 in/min (1.0 mm/min)

² 2.0 in/min (50 mm/min)

³ Rate B (120°C/h), Loading 1 (10 N)

⁴ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.

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