

TRINSEO CELEX™ 3700-10

Polycarbonate Resin

Overview

Trinseo CELEX™ 3700-10 is an ignition resistant polycarbonate (PC) resin that contains no chlorinated or brominated or phosphorous based flame retardants and provides superior ignition resistance. This resin combines good mechanical and high heat properties and maintains excellent processability. It is an easy flow PC resin suitable for use in injection molded 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)	10 g/10 min	10 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	9280 psi	64.0 MPa	
Tensile Elongation ²			ASTM D638
Yield	5.0 %	5.0 %	
Break	120 %	120 %	
Flexural Modulus	348000 psi	2400 MPa	ASTM D790
Flexural Strength	13300 psi	92.0 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	13 ft-lb/in	720 J/m	ASTM D256
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed	255 °F	124 °C	ASTM D648
Vicat Softening Temperature	300 °F	149 °C	ASTM D1525 ³
CLTE - Flow (-40 to 176°F (-40 to 80°C))	6.7E-5 in/in/°F	1.2E-4 cm/cm/°C	ASTM D696
RTI Elec	266 °F	130 °C	UL 746B
RTI Imp	239 °F	115 °C	UL 746B
RTI Str	266 °F	130 °C	UL 746B
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Comparative Tracking Index (CTI)	PLC 2	PLC 2	UL 746A
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ⁴			UL 94
0.04 in (1.0 mm), All Colors	V-0	V-0	
0.08 in (2.0 mm), All Colors	5VB	5VB	
0.12 in (3.0 mm), All Colors	5VA	5VA	
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	
Processing (Melt) Temp	518 to 572 °F	270 to 300 °C	
Mold Temperature	176 to 248 °F	80 to 120 °C	