TRINSEO™

EMERGE™ PC 8160-15
Advanced Resin

Overview

EMERGE™ PC 8160-15 advanced resin is an opaque, ignition resistant PC resin that contains no chlorinated or brominated or phosphate flame retardant additives and provides superior ignition resistance and ultraviolet light resistance. This resin combines good mechanical and high heat properties and maintains excellent processability and contains mold release agent.

Applications:

- Meters
- Electrical applications
- Tube and bulb of LED lighting applications

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.20	g/cm³	1.20	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	15	g/10 min	15	g/10 min	ASTM D1238
Molding Shrinkage - Flow	5.0E-3 to 7.0E-3	in/in	0.50 to 0.70	%	ASTM D955 ISO 294-4
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus [1]	334000	psi	2300	MPa	ASTM D638
Tensile Strength [2]					ASTM D638
Yield	8700	psi	60.0	MPa	
Break	9430	psi	65.0	MPa	
Tensile Elongation [2]					ASTM D638
Yield	6.0	%	6.0	%	
Break	120	%	120	%	
Flexural Modulus [3]	348000	psi	2400	MPa	ASTM D790
Flexural Strength [3]	13800	psi	95.0	MPa	ASTM D790
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Notched Izod Impact (73°F (23°C))	12	ft·lb/in	650	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	257	°F	125	°C	
Ball Indentation Temperature	> 257	°F	> 125	°C	IEC 60335-1
CLTE - Flow (-40 to 176°F (-40 to 80°C))	3.6E-5	in/in/°F	6.5E-5	cm/cm/°C	ASTM D696
Electrical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Arc Resistance	PLC 7		PLC 7		ASTM D495
Flammability	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Flame Rating [4]					UL 94
0.04 in (1.0 mm)	V-0		V-0		
0.08 in (2.0 mm)	V-0		V-0		
0.12 in (3.0 mm)	V-0		V-0		
Glow Wire Flammability Index [4]					IEC 60695-2-12
0.08 in (2.0 mm)	1760	°F	960	°C	
Glow Wire Ignition Temperature [4]					IEC 60695-2-13
0.08 in (2.0 mm)	1560	°F	850	°C	

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	158 to 230	°F	70 to 110	°C