TRINSEO™

EMERGE™ PC 8130-6
Advanced Resin

Overview

EMERGE™ 8130-6 IC1300080 advanced resin is a translucent, ignition resistant PC resin that contains no chlorinated or brominated 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

- Tube and bulb in LED lighting applications
- Diffusers for lighting applications
- Injection, extrusion or injection blow molded 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)	6.0	g/10 min	6.0	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]	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))	14	ft·lb/in	750	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	261	°F	127	°C	
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
0.031 in (0.8 mm)	V-1		V-1		
0.04 in (1.0 mm)	V-0		V-0		
0.08 in (2.0 mm)	• V-0 • 5VB		• V-0 • 5VB		
0.12 in (3.0 mm)	• V-0 • 5VA		• V-0 • 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	158 to 230	°F	70 to 110	°C