EMERGE™ PC 8130-6

Trinseo - Advanced Resin

General Information

Product Description

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

General			
Additive	• Mold Release	• UV Stabilizer	
Features	• Bromine Free • Chlorine Free • Flame Retardant	• Good Processability • High Heat Resistance • Ignition Resistant	• UV Resistant
Uses	• LEDs • Lighting Applications	• Sheet • Thin-walled Parts	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Blow Molding	• Injection Molding

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.20		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	6.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	5.0E-3 to 7.0E-3	in/in	ASTM D955
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [2]	334000	psi	ASTM D638
Tensile Strength [3] (Yield)	8700	psi	ASTM D638
Tensile Strength [3] (Break)	9430	psi	ASTM D638
Tensile Elongation [3] (Yield)	6.0	%	ASTM D638
Tensile Elongation [3] (Break)	120	%	ASTM D638
Flexural Modulus [4]	348000	psi	ASTM D790
Flexural Strength [4]	13800	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F)	14	ft·lb/in	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed	261	°F	
CLTE - Flow (-40 to 176°F)	3.6E-5	in/in/°F	ASTM D696
Electrical	**Nominal Value**	**Unit**	**Test Method**
Arc Resistance	PLC 7		ASTM D495

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Flammability	Nominal Value	Unit	Test Method
Flame Rating [5]			UL 94
0.031 in	V-1		
0.04 in	V-0		
0.08 in	• V-0 • 5VB		
0.12 in	• V-0 • 5VA		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	248	°F
Drying Time	3.0 to 4.0	hr
Processing (Melt) Temp	518 to 572	°F
Mold Temperature	158 to 230	°F

Notes

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

[2] 0.039 in/min

[3] 2.0 in/min

[4] 0.051 in/min

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