

EMERGE™ PC 8330-10

Advanced Resin

Overview

EMERGE™ PC 8330-10 advanced resin is a transparent, ignition resistant PC resin that contains no chlorinated or brominated or phosphorous based additives. This resin combines good mechanical and high heat properties, maintains excellent processability and contains mold release agent. EMERGE™ PC 8330-10 has a UL94 V0 rating at 2.5 mm.

Applications:

- A broad range of injection molded applications in the lighting, 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	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	10 g/10 min	10 g/10 min	ISO 1133
Molding Shrinkage - Flow	5.0E-3 to 7.0E-3 in/in	0.50 to 0.70 %	ISO 294-4
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			ISO 527-2/1
0.126 in (3.20 mm), Injection Molded	348000 psi	2400 MPa	
Tensile Stress			ISO 527-2/50
Yield, 0.126 in (3.20 mm), Injection Molded	8700 psi	60.0 MPa	
Break, 0.126 in (3.20 mm), Injection Molded	8410 psi	58.0 MPa	
Tensile Strain			ISO 527-2/50
Yield, 0.126 in (3.20 mm), Injection Molded	6.0 %	6.0 %	
Break, 0.126 in (3.20 mm), Injection Molded	> 100 %	> 100 %	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ISO 180/4A
0.126 in (3.20 mm), Injection Molded	14 ft-lb/in	750 J/m	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			ISO 75-2/A
264 psi (1.8 MPa), Unannealed	257 °F	125 °C	
Vicat Softening Temperature			
--	304 °F	151 °C	ISO 306/A120
--	289 °F	143 °C	ISO 306/B50
Ball Indentation Temperature	> 253 °F	> 123 °C	IEC 60598-1
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Needle Flame Test (0.0591 in (1.50 mm))	Pass	Pass	IEC 60695-2-21
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ¹ (0.10 in (2.5 mm))	V-0	V-0	UL 94
Glow Wire Flammability Index ¹			IEC 60695-2-12
0.04 in (1.0 mm)	1760 °F	960 °C	
0.08 in (2.0 mm)	1760 °F	960 °C	
0.12 in (3.0 mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature ¹			IEC 60695-2-13
0.04 in (1.0 mm)	1560 °F	850 °C	
0.08 in (2.0 mm)	1560 °F	850 °C	
0.12 in (3.0 mm)	1560 °F	850 °C	
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Transmittance	85.0 to 89.0 %	85.0 to 89.0 %	ASTM D1003

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	500 to 572 °F	260 to 300 °C
Mold Temperature	158 to 212 °F	70 to 100 °C

Notes

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

¹ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.



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