

EMERGE™ PC 8230-20 Advanced Resin

Overview

EMERGE™ 8230-20 advanced resin is an opaque, ignition resistant PC resin that contains no chlorinated or brominated or phosphorous based additives. This resin combines good mechanical and high heat properties and maintains excellent processability and contains mold release agent. EMERGE 8230-20 has a UL 94 V-0 rating at 1.5mm and is UV stabilized.

Applications:

- Meters
- Electrical applications

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.20 g/cm ³	1.20 g/cm ³	ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	20 g/10 min	20 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 527-2/50
0.157 in (4.00 mm), Injection Molded	348000 psi	2400 MPa	
Tensile Stress			
Yield, 0.157 in (4.00 mm), Injection Molded	8700 psi	60.0 MPa	ISO 527-2
Break, 0.157 in (4.00 mm), Injection Molded	8410 psi	58.0 MPa	ISO 527-2/50
Tensile Strain			ISO 527-2/50
Break, 0.157 in (4.00 mm), Injection Molded	100 %	100 %	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
73°F (23°C), Injection Molded	5.7 ft-lb/in ²	12 kJ/m ²	
Notched Izod Impact Strength			ISO 180/A
73°F (23°C), Injection Molded	5.2 ft-lb/in ²	11 kJ/m ²	
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	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ¹ (0.06 in (1.5 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	
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Transmittance	87.0 to 91.0 %	87.0 to 91.0 %	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	