

EMERGE™ PC 4330ECO

Advanced Resin

Overview

EMERGE PC 4330ECO Advanced Polycarbonate Resin contains 50% post consumer recycled (PCR) polycarbonate with IEEE 1680:2006 certified by TÜV Rheinland. Its color under the code of IC8800234 meets the stringent requirement of white. This resin also provides a property balance of flowability, ductility, stiffness and thermal resistance to meet the market needs on various applications in information technology equipment (ITE) and consumer electronics without painting or coating.

Applications

- Packaging for ITE
- Electronic accessories
- Electrical appliances

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.26 g/cm ³	1.26 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	23 g/10 min	23 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			ASTM D638
0.126 in (3.20 mm), Injection Molded	319000 psi	2200 MPa	
Tensile Strength			ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	8990 psi	62.0 MPa	
Tensile Elongation			ASTM D638
Break, 0.126 in (3.20 mm), Injection Molded	110 %	110 %	
Flexural Modulus			ASTM D790
0.126 in (3.20 mm), Injection Molded	355000 psi	2450 MPa	
Flexural Strength			ASTM D790
0.126 in (3.20 mm), Injection Molded	13900 psi	96.0 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	12 ft-lb/in	640 J/m	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness			ASTM D2240
Shore A, 0.126 in (3.20 mm), Injection Molded	99	99	
Shore D, 0.126 in (3.20 mm), Injection Molded	86	86	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	268 °F	131 °C	
264 psi (1.8 MPa), Unannealed	246 °F	119 °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	536 to 572 °F	280 to 300 °C	
Mold Temperature	140 to 194 °F	60 to 90 °C	

Notes

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

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