

EMERGE™ PC 8600PR Advanced Resin

Overview

EMERGE™ PC 8600PR advanced resin incorporates recycle content. This ignition-resistant polycarbonate does not contain halogenated additives. This resin combines good mechanical, thermal, and chemical properties while retaining excellent processability.

Applications:

- Information technology equipment
- Electronics and electrical appliances
- Battery chargers and adaptors enclosures

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.20 g/cm ³	1.20 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	11 g/10 min	11 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	292000 psi	2020 MPa	ASTM D638
Tensile Strength ²			ASTM D638
Yield	8700 psi	60.0 MPa	
Break	9140 psi	63.0 MPa	
Tensile Elongation ²			ASTM D638
Yield	5.0 %	5.0 %	
Break	90 %	90 %	
Flexural Modulus ³	334000 psi	2300 MPa	ASTM D790
Flexural Strength ³	13100 psi	90.0 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 264 psi (1.8 MPa), Unannealed	243 °F	117 °C	ASTM D648
Ball Pressure Test (257°F (125°C))	Pass	Pass	IEC 60695-10-2
RTI Elec (0.06 to 0.12 in (1.5 to 3.0 mm))	257 °F	125 °C	UL 746B
RTI Imp (0.06 to 0.12 in (1.5 to 3.0 mm))	257 °F	125 °C	UL 746B
RTI Str (0.06 to 0.12 in (1.5 to 3.0 mm))	257 °F	125 °C	UL 746B
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ⁴			UL 94
0.016 in (0.40 mm), all color	HB	HB	
0.022 in (0.55 mm), all color	V-2	V-2	
0.06 in (1.5 mm), all color	V-0	V-0	
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	