

EMERGE™ PC 8900 Advanced Resin

Overview

EMERGE™ PC 8900 is translucent, ignition-resistant Polycarbonate resin. This resin halogen free flame retardant and is intended to comply with global environmental standards. It is an easy processing PC resin suitable for use in IR PC film or sheet extrusion. It has UL 94 flammability rating of 0.5 mm V-0.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.21 g/cm ³	1.21 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	13 g/10 min	13 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	293000 psi	2020 MPa	
Tensile Strength			ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	9720 psi	67.0 MPa	
Tensile Elongation			ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	110 %	110 %	
Flexural Modulus			ASTM D790
0.126 in (3.20 mm), Injection Molded	423000 psi	2920 MPa	
Flexural Strength			ASTM D790
Yield, 0.126 in (3.20 mm), Injection Molded	14900 psi	103 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	2.1 ft-lb/in	110 J/m	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	210 °F	98.9 °C	
264 psi (1.8 MPa), Unannealed	187 °F	86.1 °C	
Vicat Softening Temperature	237 °F	114 °C	ASTM D1525 ¹
CLTE - Flow	3.6E-5 in/in/°F	6.5E-5 cm/cm/°C	ASTM D696
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Volume Resistivity	2.1E+17 ohms-cm	2.1E+17 ohms-cm	ASTM D257
Dielectric Strength	300 V/mil	12 kV/mm	ASTM D149
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ² (0.020 in (0.50 mm))	V-0	V-0	UL 94
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	212 °F	100 °C	
Drying Time	4.0 hr	4.0 hr	
Processing (Melt) Temp	500 to 554 °F	260 to 290 °C	