

EMERGE™ PC 4350 Advanced Resin

Overview

EMERGE™ PC 4350 Advanced Resin is a polycarbonate resin offering ultraviolet light stability, high heat resistance and maximum toughness. This UV stable resin is available in a full range of colors that can be customer tailored to meet your product requirements.

Applications:

- Appliances
- Outdoor applications
- Automotive components

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)	15 g/10 min	15 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	350000 psi	2410 MPa	
Tensile Strength			ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	8700 psi	60.0 MPa	
Break, 0.126 in (3.20 mm), Injection Molded	10300 psi	71.0 MPa	
Tensile Elongation			ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	6.0 %	6.0 %	
Break, 0.126 in (3.20 mm), Injection Molded	150 %	150 %	
Flexural Modulus			ASTM D790
0.126 in (3.20 mm), Injection Molded	350000 psi	2410 MPa	
Flexural Strength			ASTM D790
0.126 in (3.20 mm), Injection Molded	14000 psi	96.5 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	16 ft-lb/in	850 J/m	
Unnotched Izod Impact			ASTM D256
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	No Break	No Break	
Instrumented Dart Impact			ASTM D3763
73°F (23°C), 0.126 in (3.20 mm), Injection Molded, Total Energy	770 in-lb	87.0 J	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness			ASTM D785
R-Scale, 0.126 in (3.20 mm), Injection Molded	118	118	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Annealed	289 °F	143 °C	
264 psi (1.8 MPa), Unannealed	260 °F	127 °C	
264 psi (1.8 MPa), Annealed	284 °F	140 °C	
Vicat Softening Temperature	298 °F	148 °C	ASTM D1525 ¹
Ball Indentation Temperature	> 257 °F	> 125 °C	IEC 60335-1
CLTE - Flow (-40 to 180°F (-40 to 82°C))	3.8E-5 in/in/°F	6.8E-5 cm/cm/°C	ASTM D696
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	520 to 550 °F	271 to 288 °C	
Mold Temperature	150 to 210 °F	66 to 99 °C	