

EMERGE™ PC/ABS 7580ECO Advanced Resin

Overview

EMERGE™ 7580ECO Advanced Resin is an ignition-resistance PC/ABS alloy without chlorinated or brominated flame retardant additives. This resin provides superior processability for molding thin-wall parts and optimizing cycle time productivity in injection molding operations.

Applications:

- Enclosures for consumer electronics
- Accessories in information technology equipment

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) (230°C/3.8 kg)	12 g/10 min	12 g/10 min	ASTM D1238
Molding Shrinkage - Flow	4.0E-3 to 6.0E-3 in/in	0.40 to 0.60 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus ¹	377000 psi	2600 MPa	ASTM D638
Tensile Strength ²			ASTM D638
Yield	8700 psi	60.0 MPa	
Break	9280 psi	64.0 MPa	
Tensile Elongation ²			ASTM D638
Yield	4.0 %	4.0 %	
Break	100 %	100 %	
Flexural Modulus	363000 psi	2500 MPa	ASTM D790
Flexural Strength	14200 psi	98.0 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	12 ft-lb/in	650 J/m	ASTM D256
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	216 °F	102 °C	
264 psi (1.8 MPa), Unannealed	198 °F	92.0 °C	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ³			UL 94
0.06 to 0.13 in (1.5 to 3.2 mm), All	V-0	V-0	
Oxygen Index ³	29 %	29 %	ASTM D2863
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	176 to 194 °F	80 to 90 °C	
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr	
Processing (Melt) Temp	446 to 500 °F	230 to 260 °C	
Mold Temperature	140 to 176 °F	60 to 80 °C	