

EMERGE™ PC/ABS 7590ECO

Advanced Resin

Overview

EMERGE 7590ECO Advanced Resin is an ignition-resistance PC/ABS alloy containing 35% post consumer recycled (PCR) materials and no chlorine or bromine 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	1.21 g/cm ³	1.21 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	15 g/10 min	15 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			ASTM D638
0.126 in (3.20 mm), Injection Molded	351000 psi	2420 MPa	
Tensile Strength			ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	7980 psi	55.0 MPa	
Break, 0.126 in (3.20 mm), Injection Molded	6670 psi	46.0 MPa	
Tensile Elongation			ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	4.0 %	4.0 %	
Break, 0.126 in (3.20 mm), Injection Molded	100 %	100 %	
Flexural Modulus			ASTM D790
0.126 in (3.20 mm), Injection Molded	410000 psi	2830 MPa	
Flexural Strength			ASTM D790
0.126 in (3.20 mm), Injection Molded	14100 psi	97.0 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	13 ft-lb/in	720 J/m	
Unnotched Izod Impact			ASTM D256
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	No Break	No Break	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed	180 °F	82.0 °C	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating (0.06 in (1.5 mm))	V-0	V-0	Trinseo Method
Oxygen Index	29 %	29 %	Trinseo Method
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	428 to 482 °F	220 to 250 °C	
Mold Temperature	140 to 176 °F	60 to 80 °C	