

Technical Information



EMERGE™ PC/ABS 7590E60 Advanced Resin

Overview

EMERGE™ PC/ABS 7590E60 Advanced Resin is an ignition-resistant PC/ABS alloy containing 60% 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	1.17 g/cm ³	1.17 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 ¹	351000 psi	2420 MPa	ASTM D638
Tensile Strength ²			ASTM D638
Yield	8560 psi	59.0 MPa	
Break	6670 psi	46.0 MPa	
Tensile Elongation ²			ASTM D638
Yield	4.0 %	4.0 %	
Break	76 %	76 %	
Flexural Modulus	410000 psi	2830 MPa	ASTM D790
Flexural Strength	14100 psi	97.0 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	13 ft-lb/in	680 J/m	ASTM D256
Unnotched Izod Impact (73°F (23°C))	No Break	No Break	ASTM D4812
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed	180 °F	82.0 °C	ASTM D648
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ³ (0.06 in (1.5 mm))	V-0	V-0	UL 94
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 536 °F	230 to 280 °C	
Mold Temperature	140 to 176 °F	60 to 80 °C	

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ 0.039 in/min (1.0 mm/min)

² 2.0 in/min (50 mm/min)

³ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.

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