

EMERGE™ PC/ABS 7890

Advanced Resin

Overview

EMERGE™ PC/ABS 7890 Advanced Resin is an ignition-resistance PC/ABS alloy contains 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	1.20 g/cm ³	1.20 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
230°C/3.8 kg	14 g/10 min	14 g/10 min	
260°C/5.0 kg	57 g/10 min	57 g/10 min	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			ASTM D638
0.126 in (3.20 mm), Injection Molded	331000 psi	2280 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	6670 psi	46.0 MPa	
Tensile Elongation			ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	3.2 %	3.2 %	
Break, 0.126 in (3.20 mm), Injection Molded	37 %	37 %	
Flexural Modulus			ASTM D790
0.126 in (3.20 mm), Injection Molded	387000 psi	2670 MPa	
Flexural Strength			ASTM D790
0.126 in (3.20 mm), Injection Molded	13500 psi	93.0 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	10 ft-lb/in	550 J/m	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness			ASTM D785
R-Scale, 0.126 in (3.20 mm), Injection Molded	117	117	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	194 °F	90.0 °C	
66 psi (0.45 MPa), Annealed	201 °F	94.0 °C	
264 psi (1.8 MPa), Unannealed	172 °F	78.0 °C	
264 psi (1.8 MPa), Annealed	194 °F	90.0 °C	
Vicat Softening Temperature			
--	201 °F	94.0 °C	ASTM D1525 ¹
--	223 °F	106 °C	ASTM D1525 ²

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ³			UL 94
0.020 in (0.50 mm), all color	V-2	V-2	
0.04 in (1.0 mm), all color	V-1	V-1	
0.04 in (1.0 mm), NC, BK	V-0	V-0	
0.06 in (1.4 mm), all color	• V-0 • 5VB	• V-0 • 5VB	

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80 °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	104 to 158 °F	40 to 70 °C

Notes

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

¹ Rate A (50°C/h), Loading 2 (50 N)

² Rate B (120°C/h), Loading 1 (10 N)

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



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