

EMERGE™ PC/ABS 7570 Advanced Resin

Overview

EMERGE™ PC/ABS 7570 Advanced Resin is a high flow, ignition-resistant PC/ABS blend that contains no chlorinated or brominated flame retardant additives. Its superior processing makes it ideal for injection molding of large, thin-wall, or intricate parts. EMERGE PC/ABS 7570 is suitable for use in a wide variety of applications in the Information Technology Equipment, Consumer Electronics and Electrical & Lighting Markets.

Main Characteristics:

- UL 94 V-0 at 1.5 mm
- Does not contain chlorine or bromine additives

Applications:

Electrical housing (sockets, switches, etc.) and Lighting
Smartphone, Tablet, Laptop housing/casing

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.18 g/cm ³	1.18 g/cm ³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238 ISO 1133
230°C/3.8 kg	20 g/10 min	20 g/10 min	
260°C/5.0 kg	95 g/10 min	95 g/10 min	
Molding Shrinkage - Flow	4.0E-3 to 6.0E-3 in/in	0.40 to 0.60 %	ISO 294-4
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	377000 psi	2600 MPa	ISO 527-1/1
Tensile Stress			ISO 527-2/50
Yield	8700 psi	60.0 MPa	
Break	6820 psi	47.0 MPa	
Tensile Strain			ISO 527-2/50
Yield	4.0 %	4.0 %	
Break	40 %	40 %	
Flexural Modulus	392000 psi	2700 MPa	ISO 178
Flexural Stress	13300 psi	92.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	8.6 ft-lb/in ²	18 kJ/m ²	ISO 179/1eA
Notched Izod Impact Strength (73°F (23°C))	5.7 ft-lb/in ²	12 kJ/m ²	ISO 180/1A
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	194 °F	90.0 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	176 °F	80.0 °C	ISO 75-2/A
Vicat Softening Temperature			
--	221 °F	105 °C	ASTM D1525 ¹ ISO 306/A120 ¹
--	208 °F	98.0 °C	ISO 306/B50
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ² (0.06 in (1.6 mm), All Colors)	V-0	V-0	UL 94
Glow Wire Flammability Index ²			IEC 60695-2-12
0.08 in (2.0 mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature ²			IEC 60695-2-13
0.08 in (2.0 mm)	1470 °F	800 °C	

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	464 to 536 °F	240 to 280 °C
Mold Temperature	104 to 176 °F	40 to 80 °C