

EMERGE™ PC/ABS 7570EP Advanced Resin

Overview

EMERGE™ PC/ABS 7570EP Advanced Resin is a high flow, ignition resistant PC/ABS blend that contains no chlorinated or brominated additives. This resin is specifically designed to offer enhanced processing in "heat and cool" moulding applications, delivering optimum filling and packing performance. EMERGE™ PC/ABS 7570EP is suitable for moulding a wide range of parts in the Information Technology Equipment & Consumer Electronics & Electrical devices.

Applications:

- LCD TV Enclosures
- Monitor and PC Enclosures
- Electrical Enclosures

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.18 g/cm ³	1.18 g/cm ³	ISO 1183/B
Apparent (Bulk) Density	0.67 g/cm ³	0.67 g/cm ³	ISO 60
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	48 g/10 min	48 g/10 min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	3.9E-3 to 4.3E-3 in/in	0.39 to 0.43 %	
Flow	4.1E-3 to 4.6E-3 in/in	0.41 to 0.46 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	397000 psi	2740 MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield	9140 psi	63.0 MPa	
Break	7110 psi	49.0 MPa	
Tensile Strain			ISO 527-2/50
Yield	3.9 %	3.9 %	
Break	15 %	15 %	
Flexural Modulus ¹	392000 psi	2700 MPa	ISO 178
Flexural Stress ¹	13300 psi	92.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact Strength (73°F (23°C))	4.3 ft-lb/in ²	9.0 kJ/m ²	ISO 180/A
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	120	120	ISO 2039-2
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			ISO 75-2/A
264 psi (1.8 MPa), Unannealed	174 °F	79.0 °C	
Vicat Softening Temperature	219 °F	104 °C	ISO 306/A120
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	> 1.0E+15 ohms	> 1.0E+15 ohms	IEC 60093
Volume Resistivity	> 1.0E+15 ohms-cm	> 1.0E+15 ohms-cm	IEC 60093
Electric Strength	890 V/mil	35 kV/mm	IEC 60243-1
Dielectric Constant			IEC 60250
100 Hz	3.20	3.20	
1 MHz	3.10	3.10	
Dissipation Factor			IEC 60250
100 Hz	4.0E-3	4.0E-3	
1 MHz	7.0E-3	7.0E-3	

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ² (0.06 in (1.6 mm))	V-0	V-0	UL 94
Glow Wire Flammability Index ²			IEC 60695-2-12
0.04 in (1.0 mm)	1760 °F	960 °C	
0.08 in (2.0 mm)	1760 °F	960 °C	
0.12 in (3.0 mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature ²			IEC 60695-2-13
0.04 in (1.0 mm)	1470 °F	800 °C	
0.08 in (2.0 mm)	1470 °F	800 °C	
0.12 in (3.0 mm)	1470 °F	800 °C	
Needle Flame Test ² (59.1 mil (1.50 mm))	PASS	PASS	IEC 60695-2-2

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 to 185 °F	80 to 85 °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	104 to 176 °F	40 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 0.079 in/min (2.0 mm/min)

² This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.



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