

STYRON™ 485

High Impact Polystyrene Resin

Overview

STYRON™ 485 is an easy-flowing, high impact polystyrene, offering high impact strength coupled with good flexibility.

Applications:

- Packaging, diluted with general purpose polystyrene
- Industrial articles

Complies with:

- Europe REGULATION (EC)10/2011
- U.S. FDA 21 CFR 177.1640
- Consult the regulations for complete details.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm ³	1.05 g/cm ³	ISO 1183
Apparent (Bulk) Density	0.60 g/cm ³	0.60 g/cm ³	ISO 60
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	12 g/10 min	12 g/10 min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Stress			ISO 527-2/5
Yield	2320 psi	16.0 MPa	
Break	2320 psi	16.0 MPa	
Tensile Strain			ISO 527-2/5
Yield	1.5 %	1.5 %	
Break	50 %	50 %	
Flexural Modulus	290000 psi	2000 MPa	ISO 178
Flexural Stress	7250 psi	50.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/2
Compression Molded	3.3 ft-lb/in ²	7.0 kJ/m ²	
Notched Izod Impact			
Compression Molded	1.7 ft-lb/in	90 J/m	ASTM D256
Injection Molded	1.3 ft-lb/in	70 J/m	ASTM D256
--	13 ft-lb/in ²	28 kJ/m ²	ISO 180
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	55	55	ISO 2039-2
Ball Indentation Hardness	10200 psi	70.0 MPa	ISO 2039-1
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Annealed	190 °F	88.0 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	163 °F	73.0 °C	ISO 75-2/A
264 psi (1.8 MPa), Annealed	183 °F	84.0 °C	ISO 75-2/A
Vicat Softening Temperature			
--	205 °F	96.0 °C	ISO 306/A120
--	189 °F	87.0 °C	ISO 306/B50
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Dielectric Constant (1 MHz)	2.50	2.50	ASTM D150
Dissipation Factor (1 MHz)	4.0E-4	4.0E-4	ASTM D150

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ¹ (0.06 in (1.6 mm))	HB	HB	UL 94
Glow Wire Flammability Index			IEC 60695-2-12
0.04 in (1.0 mm)	1290 °F	700 °C	
0.08 in (2.0 mm)	1200 °F	650 °C	
0.12 in (3.0 mm)	1200 °F	650 °C	

Notes

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

¹ This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.



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