

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	1.04 g/cm ³	1.04 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 Modulus	239000 psi	1650 MPa	ISO 527-1/1
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
Notched Izod Impact Strength (73°F (23°C))	3.8 ft-lb/in ²	8.0 kJ/m ²	ISO 180/1A
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness	10200 psi	70.0 MPa	ISO 2039-1
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ISO 75-2/A
264 psi (1.8 MPa), Unannealed	172 °F	78.0 °C	
Vicat Softening Temperature	205 °F	96.0 °C	ISO 306/A120
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ¹ (0.06 in (1.5 mm))	HB	HB	UL 94
Glow Wire Flammability Index ¹			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	

Additional Information

Mass balance versions (bio-based (BIO) or chemically recycled (CR)) of this product are chemically and physically indistinguishable to the standard fossil grade. This technical data sheet applies to all versions. Letters of sameness are available upon request.