

Technical Information



STYRON A-TECH™ 1300

Polystyrene Resin

Overview

STYRON A-TECH™ 1300 advanced technology polystyrene resin is a high impact polystyrene resin offering excellent toughness and strength with good processability.

Main Characteristics:

- Excellent toughness
- High strength
- Easy processing
- Gas-assist molding
- High heat

Applications:

- TV
- Printers
- Audio enclosures
- Small appliances

Complies with:

- U.S. FDA 21 CFR 177.1640
- Consult the regulation for complete details.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.04 g/cm ³	1.04 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	4.5 g/10 min	4.5 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ¹			ASTM D638
Yield, Injection Molded	4060 psi	28.0 MPa	
Break, Injection Molded	4060 psi	28.0 MPa	
Tensile Elongation ¹ (Break, Injection Molded)	50 %	50 %	ASTM D638
Flexural Modulus (Injection Molded)	291000 psi	2010 MPa	ASTM D790
Flexural Strength (Injection Molded)	7250 psi	50.0 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
73°F (23°C), Injection Molded	2.4 ft-lb/in	130 J/m	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed	163 °F	73.0 °C	
264 psi (1.8 MPa), Annealed	199 °F	93.0 °C	
Vicat Softening Temperature	221 °F	105 °C	ASTM D1525 ²
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ³ (0.06 in (1.5 mm))	HB	HB	UL 94

Notes

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

¹ 0.20 in/min (5.0 mm/min)

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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