

STYRON™ 678E

General Purpose Polystyrene Resin

Overview

STYRON™ 678E is a general purpose polystyrene with high flow and good toughness. It is designed for injection molding cap coating and for use either pure or in a mixture with other easy flowing high impact polymers in injection molding applications.

Applications:

- Thin-walled containers
- Coextrusion cap coating

Complies with:

- Europe EU-Directive 2002/72/EC by 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)	11 g/10 min	11 g/10 min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Stress (Yield)	6240 psi	43.0 MPa	ISO 527-2/5
Tensile Strain (Break)	2.0 %	2.0 %	ISO 527-2/5
Flexural Modulus	435000 psi	3000 MPa	ISO 178
Flexural Stress	11600 psi	80.0 MPa	ISO 178
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness	21800 psi	150 MPa	ISO 2039-1
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Annealed	180 °F	82.0 °C	ISO 75-2/A
Vicat Softening Temperature	199 °F	93.0 °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

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.