

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	1.05 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)	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	508000 psi	3500 MPa	ISO 178
Flexural Stress	11600 psi	80.0 MPa	ISO 178
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	105	105	ISO 2039-2
Ball Indentation Hardness	21800 psi	150 MPa	ISO 2039-1
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Annealed	187 °F	86.0 °C	ISO 75-2/B
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
--	187 °F	86.0 °C	ISO 306/B50
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Dissipation Factor (1 MHz)	6.0E-5	6.0E-5	ASTM D150
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ¹ (0.06 in (1.6 mm))	HB	HB	UL 94