

# STYRON™ 637

## General Purpose Polystyrene Resin

### Overview

STYRON™ 637 is a general purpose polystyrene designed for use in extrusion blending with impact polystyrene where its high strength can be used to maximum advantage. It is a high molecular weight material designed for extrusion blending. Its high strength makes it ideally suited for packaging applications.

Applications:

- Injection molded packages
- Packaging foam extrusion
- Injection molded containers

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 <sup>3</sup>	1.05 g/cm <sup>3</sup>	ISO 1183
Apparent (Bulk) Density	0.60 g/cm <sup>3</sup>	0.60 g/cm <sup>3</sup>	ISO 60
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	2.5 g/10 min	2.5 g/10 min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Stress (Yield)	7980 psi	55.0 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	199 °F	93.0 °C	ISO 75-2/B
264 psi (1.8 MPa), Annealed	194 °F	90.0 °C	ISO 75-2/A
Vicat Softening Temperature			
--	207 °F	97.0 °C	ISO 306/A120
--	198 °F	92.0 °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)	6.0E-5	6.0E-5	ASTM D150
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating <sup>1</sup> (0.06 in (1.6 mm))	HB	HB	UL 94