

# STYRON™ 670

## General Purpose Polystyrene Resin

**Overview** STYRON™ 670 is a general purpose polystyrene with good processability. It is designed for foam board application.

Main Characteristics:

- Easy processing
- U.S. FDA 21 CFR 177.1640
  - Consult Regulations for details.

Applications:

- Foam board applications

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.04 g/cm <sup>3</sup>	1.04 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	5.0 g/10 min	5.0 g/10 min	ASTM D1238
Molding Shrinkage - Flow	4.0E-3 to 7.0E-3 in/in	0.40 to 0.70 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus (Injection Molded)	479000 psi	3300 MPa	ASTM D638
Tensile Strength (Yield, Injection Molded)	7400 psi	51.0 MPa	ASTM D638
Tensile Elongation (Break, Injection Molded)	2.0 %	2.0 %	ASTM D638
Flexural Modulus (Injection Molded)	479000 psi	3300 MPa	ASTM D790
Flexural Strength (Injection Molded)	14500 psi	100 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
73°F (23°C), Injection Molded	0.30 ft-lb/in	16 J/m	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed	180 °F	82.0 °C	
264 psi (1.8 MPa), Annealed	201 °F	94.0 °C	
Vicat Softening Temperature	217 °F	103 °C	ASTM D1525
CLTE - Flow	4.2E-5 in/in/°F	7.6E-5 cm/cm/°C	ASTM D696