

Technical Data Sheet

POLYMAN® (SB) 416

General Purpose Polystyrene
Engineering Plastics

Product Description

Polystyrene with improved impact strength

General

Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PS

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm³	1.05 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (200°C/5.0 kg)	18 cm³/10min	18 cm³/10min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	368000 psi	2540 MPa	ISO 527-2/1A/1
Tensile Stress			ISO 527-2/1A/50
Yield	4160 psi	28.7 MPa	
Break	3070 psi	21.2 MPa	
Tensile Strain (Yield)	1.3 %	1.3 %	ISO 527-2/1A/50
Nominal Tensile Strain at Break	30 %	30 %	ISO 527-2/1A/50
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	2.8 ft·lb/in²	5.8 kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
73°F (23°C)	25 ft·lb/in²	52 kJ/m²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	181 °F	83.0 °C	ISO 306/B50
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	ISO 3795
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	FMVSS 302

Additional Information

- 1.) Not for use in food contact applications
- 2.) Not for use in medical or pharmaceutical applications

Notes

These are typical property values not to be construed as specification limits.