



**TotalEnergies**

TotalEnergies Petrochemicals & Refining USA, Inc.  
Polymers Americas

**Polystyrene 523W**

Technical Data Sheet  
Polystyrene - Crystal  
Produced in the United States

## Description

**Polystyrene 523W:** Is a unique high flow, high heat crystal polystyrene. Specially designed for foam applications 523W has a very narrow molecular weight distribution that provides excellent performance in extruded loose fill foam applications.

### Application:

- Loose fill packaging
- Foam board
- Insulation board

### General Information:

- This material complies with FDA requirements as described in 21 CFR §177.1640.
- This material holds Underwriters Laboratory recognition 94HB; see UL File E55470 at [www.UL.com](http://www.UL.com).
- USP Class VI
- Material Safety Data Sheets are available to help customers satisfy their safety needs.

## Characteristics

	Method	Unit	Typical Value
<b>Rheological Properties</b>			
Melt Flow (200°C-5kg)	D-1238	g/10mn	11.0
<b>Mechanical Properties</b>			
Tensile Strength	D-638	psi	6,500
Tensile Modulus	D-638	psi (10 <sup>5</sup> )	4.4
Flexural Strength	D-790	psi	11,900
Flexural Modulus	D-790	psi (10 <sup>5</sup> )	4.8
<b>Thermal Properties</b>			
Heat Distortion - Annealed	D-648	°F	204
Vicat Softening	D-1525	°F	222
<b>Other Physical Properties</b>			
Density		g/cm <sup>3</sup>	1.04
Linear Shrinkage	D-955	in/in	.004 - .007
Moisture		%	<0.1