

# PS 155

General Purpose Polystyrene

## Product Description

General purpose Polystyrene PS 155 is manufactured by continuous mass polymerization of styrene monomer. It is a crystal-like, hard and brittle polymer with medium flow and good tensile and flexural strength. It has high vicat and heat deflection temperatures.

## Typical Applications

It is recommended for extrusion purposes. It can be used for foam extrusion application such as building insulation.

## Typical data

Properties	Unit	Value <sup>(1)</sup>	ASTM Method
<b>Resin Properties</b>			
Melt Flow Rate @ 200°C & 5 kg load	g/10 min.	7.5	D-1238
Density @ 23°C	kg/m <sup>3</sup>	1050	D-792
Bulk Density (Method B)	kg/m <sup>3</sup>	600	D-1895
<b>Mechanical Properties <sup>(2)</sup></b>			
Tensile Strength	MPa	45	D-638
Tensile Elongation	%	2	D-638
Tensile Modulus	MPa	2990	D-638
Flexural Strength	MPa	66	D-790
Flexural Modulus	MPa	3627	D-790
Izod Impact Notched @ 23°C	J/m	16	D-256
Rockwell Hardness, L-Scale	-	93	D-785
M-Scale	-	60	
<b>Thermal Properties <sup>(2)</sup></b>			
Vicat Softening Point (Rate A, 1 Kg/50°C)	°C	102	D-1525
Heat Deflection Temperature (Method B, 455 KPa, Annealed)	°C	100	D-648
Flammability Rating, UL 94 @ 1.3 mm and 3 mm (natural color)	Class	HB	-

(1) Typical values; not to be construed as specification limits.

(2) Based on injection molded specimens.

## Processing Conditions

Typical temperature (°C) profile for injection grade PS 155:

Throat	Feed	Transition	Metering	Die
Ambient	185	200	220	230

### **Food Regulation**

PS 155 is suitable for Food contact application. Detailed information is provided in relevant Material Safety Datasheet and for additional specific information please contact SABIC local representative for certificate.

### **Storage and Handling**

Polystyrene resin should be stored to prevent a direct exposure to sunlight and/or heat. The storage area should also be dry and preferably don't exceed 50°C. SABIC would not give warranty to bad storage conditions which may lead to quality deterioration such as color change, bad smell and inadequate product performance. It is advisable to process PS resin within 6 months after delivery.

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