



## PS 160

General Purpose Polystyrene for Foam Extrusion

### Product Description

General purpose Polystyrene PS 160 is manufactured by continuous mass polymerization of styrene monomer. It is a crystal-like, hard and brittle material having High molecular weight imparting high tensile strength to end-products. It has high vicat and heat deflection temperatures.

### Typical Applications

It is recommended for foam extrusion for egg cartons, clam-shell and for building insulation boards. It is also recommended for cookie and cake trays that requires good organoleptics properties and can also be used for oriented polystyrene packaging products, artificial timber and light diffusers.

### 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.	3.3	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	51	D-638
Tensile Elongation	%	2	D-638
Tensile Modulus	MPa	2990	D-638
Flexural Strength	MPa	95	D-790
Flexural Modulus	MPa	3627	D-790
Izod Impact Notched @ 23°C	J/m	20	D-256
Rockwell Hardness, L-Scale	-	92	D-785
M-Scale	-	58	D-785
<b>Thermal Properties <sup>(2)</sup></b>			
Vicat Softening Point (Rate A, 1 Kg/50°C)	°C	104	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 extrusion grade PS 160:

Throat	Feed	Transition	Metering	Die
Ambient	195	225	235	230

## **Food Regulation**

PS 160 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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