

PRODUCT NAME: PS ps160
Supplier: SABIC®
Product Identification & 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.

Physical Properties

Property	Typical Values	Units	Test Methods
Melt Flow Rate (MFR) @ 200 °C / 5 k	3.3	g/10 min	ASTM D1238
Load Density @ 23 °C	1050	kg/m ³	ASTM D792
Bulk Density (Method B)	600	kg/m ³	ASTM D1895

Mechanical Properties

Property	Typical Values	Units	Test Methods
Tensile Strength	51	MPa	ASTM D638
Tensile Elongation	2	%	ASTM D638
Tensile Modulus	2990	MPa	ASTM D638
Flexural Strength	95	MPa	ASTM D790
Flexural Modulus	3627	MPa	ASTM D790
Izod Impact, Notched @ 23 °C	20	J/m	ASTM D256A
Rockwell Hardness (L-Scale)	92	-	ASTM D785
Rockwell Hardness (M-Scale)	58	-	ASTM D785

Thermal Properties

Property	Typical Values	Units	Test Methods
Vicat Softening Point (Rate A / 50 °C	104	°C	ASTM D1525
Heat Deflection Temperature (Metfr B, 455 kPa, Annealed)	100	°C	ASTM D648
Flammability Rating UL 94 @ 1.3 ml 3 mm (Natural)	HB	Rating	

Processing Conditions

- Typical temperature (°C) profile for PS 160: Throat Ambient, Feed 195°C, Transition 225°C, Metering 235°C, Die 230°C

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.

DISCLAIMER

The information contained herein may include typical properties of our products or their typical performances when used in certain typical applications. Actual properties of our products, in particular when used in conjunction with any third party material(s) or for any non-typical applications, may differ from typical properties. It is the customer's responsibility to inspect and test our product(s) in order to satisfy itself as to the suitability of the product(s) for its and its customers particular purposes.

The customer is responsible for the appropriate, safe and legal use, processing and handling of all product(s) purchased from us. Nothing herein is intended to be nor shall it constitute a warranty whatsoever, in particular, warranty of merchantability or fitness for a particular purpose.

Revision: This datasheet replaces all previous versions. **Revision Date:** Mar 2026

