PS 125

General Purpose Polystyrene for Injection Molding

Product Description

General purpose Polystyrene PS 125 is manufactured by continuous mass polymerization of styrene monomer. It is a crystal-like, hard and brittle polymer with medium flow and high clarity. It also has medium vicat and heat deflection temperatures and makes it suitable for various applications.

Typical Applications

It is recommended for packaging items, namely jewelry and gift boxes; medical supplies such as Petri dishes, test tubes holders and specimen jars. It can also be used in capping the high impact polystyrene coextruded sheet for higher surface gloss and can be blended with impact modifier resin for clear packaging articles.

Typical data

Properties	Unit	Value [1]	ASTM Method
Resin Properties			
Melt Flow Rate @ 200°C & 5 kg load	g/10 min.	7.0	D-1238
Density @ 23°C	kg/m³	1050	D-792
Bulk Density (Method B)	kg/m³	600	D-1895
Mechanical Properties [2]			
Tensile Strength	MPa	43	D-638
Tensile Elongation	%	2	D-638
Tensile Modulus	MPa	2598	D-638
Flexural Strength	MPa	82	D-790
Flexural Modulus	MPa	3529	D-790
Izod Impact Notched @ 23°C	J/m	12	D-256
Rockwell Hardness, L-Scale	-	95	D-785
M-Scale		63	
Thermal Properties [2]			
Vicat Softening Point (Rate A, 1 Kg/50°C)	°C	95	D-1525
Heat Deflection Temperature (Method B, 455 KPa, Annealed)	°C	90	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 125:

Throat	Feed	Transition	Metering	Die
Ambient	170	195	220	215

Food Regulation

PS 125 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.