PS 100

General Purpose Polystyrene for Injection Molding

Product Description

General purpose Polystyrene PS 100 is manufactured by continuous mass polymerization of styrene monomer. It is a crystal-like, hard and brittle polymer with good flow properties and high clarity. It is designed for medium and thin wall thickness articles and gives broad processing window for molding applications.

Typical Applications

It is recommended for the manufacture of packaging items such as plastic boxes and typical applications include cutlery, tumblers, office stationery items, jewelry boxes, medical supplies or any clear injection molded items.

Typical data

Properties	Unit	Value (1)	ASTM Method
Resin Properties			
Melt Flow Rate @ 200°C & 5 kg load	g/10 min.	14	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	40	D-638
Tensile Elongation	%	2	D-638
Tensile Modulus	MPa	2254	D-638
Flexural Strength	MPa	72	D-790
Flexural Modulus	MPa	3529	D-790
Izod Impact Notched @ 23°C	J/m	12	D-256
Rockwell Hardness, L-Scale	-	94	D-785
M-Scale		64	
Thermal Properties (2)			
Vicat Softening Point (Rate A, 1 Kg/50°C)	°C	92	D-1525
Heat Deflection Temperature (Method B, 455 KPa, Annealed)	°C	87	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 100:

Throat	Feed	Transition	Metering	Die
Ambient	160	190	210	205

Food Regulation

PS 100 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.