

POLYMERS

SABIC® PS 325

High Impact Polystyrene for Injection Molding

Product Description

High Impact Polystyrene PS 325 is manufactured by continuous mass polymerization of styrene monomer. An elastomer is incorporated during polymerization to achieve impact resistance property. It is generally opaque in color. It is having medium flow characteristics with high tensile and flexural strength with medium heat deflection and vicat temperatures.

Typical Applications

PS 325 has been designed for the injection molding of appliance parts, toys, furniture parts, containers, blow molded parts and structural foam applications.

Processing Conditions

Typical temperature (°C) profile for injection grade PS 325:

Throat	Feed	Transition	Metering	Die
Ambient	175	210	220	215

Typical data

Properties	Unit	Value (1)	Test Method
Melt Flow Rate @ 230°C & 2.16 kg	g/10 min.	8.0	D-1238
Load Density @ 23°C	kg/m ³	1040	D-792
Bulk Density (Method B)	kg/m ³	600	D-1895
Mechanical Properties(2)			
Tensile Strength	MPa	22	D-638
Tensile Elongation	%	50	D-638
Tensile Modulus	MPa	2157	D-638
Flexural Strength	MPa	35	D-790
Flexural Modulus	MPa	2353	D-790
Izod Impact Notched @ 23°C	J/m	100	D-256
Rockwell Hardness, L-Scale	-	60	D-785
M-Scale	-	10	-
Thermal Properties			
Vicat Softening Point (Rate A, 1 Kg/50°C)	°C	95	D-1525
Heat Deflection Temperature (Method B, 455 KPa, Annealed)	°C	93	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.

Food Regulation

PS 325 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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