

# SABIC® PS 325

## HIGH IMPACT POLYSTYRENE FOR INJECTION MOLDING

### DESCRIPTION

PS 325 is High Impact Polystyrene 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.

### TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>POLYMER PROPERTIES</b>			
<b>Melt Flow Rate</b>			
@ 230°C & 2.16 kg <sup>(1)</sup>	8.0	g/10 min	ASTM D 1238
<b>Load Density@ 23°C <sup>(1)</sup></b>	1040	kg/m <sup>3</sup>	ASTM D792
<b>Bulk Density (Method B) <sup>(1)</sup></b>	600	kg/m <sup>3</sup>	ASTM D 1895
<b>MECHANICAL PROPERTIES</b>			
<b>Tensile Strength <sup>(2)</sup></b>	22	MPa	ASTM D638
<b>Tensile Elongation <sup>(2)</sup></b>	50	%	ASTM D638
<b>Tensile modulus <sup>(2)</sup></b>	2157	MPa	ASTM D638
<b>Flexural Strength <sup>(2)</sup></b>	35	MPa	ASTM D790
<b>Flexural Modulus</b>	2353	MPa	ASTM D 790
<b>Izod impact notched</b>			
@ 23°C <sup>(2)</sup>	100	J/m	ASTM D 256
<b>Rockwell Hardness, L-Scale <sup>(2)</sup></b>	60	-	ASTM D785
<b>M-Scale <sup>(2)</sup></b>	10	-	ASTM D785
<b>THERMAL PROPERTIES</b>			
<b>Vicat Softening Point, (Rate A/50°C)</b>	95	°C	ASTM D 1525
<b>Heat Deflection Temperature (Method B, 455 KPa, Annealed)</b>	93	°C	ASTM D648
<b>Flammability Rating, UL 94</b>			
@ 1.3 mm and 3 mm (natural color)	HB	Class	



- (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 325: Throat Feed Transition Metering Die Ambient 175 210 220 215

## HEALTH, SAFETY AND FOOD CONTACT REGULATIONS

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

PS 325 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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