

SABIC® PS 100

GENERAL PURPOSE POLYSTYRENE

DESCRIPTION

PS 100 is general purpose Polystyrene 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

PS 100 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 PROPERTY VALUES

Revision 20220218

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL			
Melt Flow Rate, 230°C/2.16 kgf ⁽¹⁾	14	g/10 min	ASTM D1238
POLYMER PROPERTIES			
Load Density@ 23°C	1050	kg/m ³	ASTM D792
Bulk Density (Method B)	600	kg/m ³	ASTM D1895
MECHANICAL PROPERTIES			
Tensile Strength	40	MPa	ASTM D638
Tensile Elongation	2	%	ASTM D638
Tensile modulus	2254	MPa	ASTM D638
Flexural Strength	72	MPa	ASTM D790
Flexural Modulus	3529	MPa	ASTM D790
Izod impact notched at 23 °C	12	J/m	ASTM D256A
Rockwell Hardness, L-Scale	94	-	ASTM D785
M-Scale ⁽²⁾	64	-	ASTM D785
THERMAL PROPERTIES			
Flammability Rating, UL 94			
@ 1.3 mm and 3 mm (natural color)	HB	Class	-
Vicat Softening Point, (Rate A/50°C)	95	°C	ASTM D1525
Heat Deflection Temperature (Method B, 455 KPa, Annealed)	90	°C	ASTM D648

(1) Typical values; not to be construed as specification limits

(2) Based on Injection molded specimens

PROCESSING CONDITIONS

Typical temperature (°C) profile for barrel : 160-210

STORAGE AND HANDLING

PS 100 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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