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SABIC® PS 160

GENERAL PURPOSE POLYSTYRENE FOR FOAM EXTRUSION

DESCRIPTION

General purpose Polystyrene PS 160 is manufactured by continuous mass polymerization of styrene monomer. It is a crystal-like, hard and brittle material having High molecular weight imparting high tensile strength to end- products. It has high vicat and heat deflection temperatures.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
@ 200°C & 5 kg [1]	3.3	g/10 min	ASTM D1238
Load Density@ 23°C	1050	kg/m³	ASTM D792
Bulk Density (Method B)	600	kg/m³	ASTM D1895
MECHANICAL PROPERTIES			
Tensile Strength [2]	51	MPa	ASTM D638
Tensile Elongation	2	%	ASTM D638
Flexural Modulus	3627	MPa	ASTM D790
Flexural Strength	95	MPa	ASTM D790
Izod impact notched at 23 °C	20	J/m	ASTM D256A
Rockwell Hardness			
L-Scale	92	-	ASTM D785
M-Scale	58	-	ASTM D785
Tensile modulus	2990	MPa	ASTM D638
THERMAL PROPERTIES			
Vicat Softening Point, (Rate A/50°C)	104	°C	ASTM D1525
Heat Deflection Temperature (Method B, 455 KPa, Annealed)	100	°C	ASTM D648
Flammability Rating, UL 94			
@ 1.3 mm and 3 mm (natural color) [1]	HB	Rate	-

(1) Typical values; not to be construed as specification limits.
(2) Based on Injection molded specimens.

APPLICATIONS

It is recommended for foam extrusion for egg cartons, clam-shell and for building insulation boards. It is also recommended for cookie and cake trays that requires good organoleptics properties and can also be used for oriented polystyrene packaging products, artificial timber and light diffusers.

PROCESSING CONDITIONS

Typical temperature (°C) profile for PS 160:

Throat Ambient, Feed 195°C, Transition 225°C, Metering 235°C, Die 230°C