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SABIC® PS 155

GENERAL PURPOSE POLYSTYRENE FOR FOAM EXTRUSION

DESCRIPTION

General purpose Polystyrene PS 155 is manufactured by continuous mass polymerization of styrene monomer. It is a crystal-like, hard and brittle polymer with medium flow and good tensile and flexural strength. 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)	7	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	45	MPa	ASTM D638
Tensile Elongation	2	%	ASTM D638
Tensile modulus	2990	MPa	ASTM D638
Flexural Strength	66	MPa	ASTM D790
Flexural Modulus	3627	MPa	ASTM D790
Izod impact notched at 23 °C	16	J/m	ASTM D256A
Rockwell Hardness			
L-Scale (2)	93	-	ASTM D785
M-Scale	60	-	ASTM D785
THERMAL PROPERTIES			
Vicat Softening Point, (Rate A/50°C)	102	°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)	MB	Rate	-

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

APPLICATIONS

It is recommended for extrusion purposes. It can be used for foam extrusion application such as building insulation.

PROCESSING CONDITIONS

Typical temperature (°C) profile for PS 155:

Throat Ambient, Feed 185°C, Transition 200°C, Metering 220°C and Die 230°C