

SABIC® LDPE P223

LOW DENSITY POLYETHYLENE FOR PIPES

DESCRIPTION

P223 is a natural low density polyethylene (LDPE) resin, designed for non-pressure pipe extrusion application.

TYPICAL APPLICATIONS

The grade is designed to be used as blend with HDPE for Non-Pressure pipe applications such as irrigation, cable conduits, corrugated & gravity pipe segments.

TYPICAL PROPERTY VALUES

Revision 20240202

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES ⁽¹⁾			
Melt Flow Rate (MFR)			
@ 190°C & 2.16kg load	2	g/10 min	ASTM D1238
@ 190°C & 5 kg load	7.1	g/10 min	ASTM D1238
Density			
Density at 23°C	923	kg/m ³	ASTM D792
MECHANICAL PROPERTIES ⁽¹⁾			
Tensile strength			
Tensile @ Yield ⁽²⁾	10	MPa	ASTM D638
Tensile @ Break	12.7	MPa	ASTM D638
Elongation @ Yield	11.4	%	ASTM D638
Elongation @ Break	87.4	%	ASTM D638
Tensile Modulus	324.4	MPa	ASTM D638
Flexural Modulus	155.2	MPa	ASTM D790
Hardness			
Hardness (shore D) ⁽³⁾	42.8	-	ASTM D2240
THERMAL PROPERTIES			
Vicat Softening Temperature			
Vicat	94.5	°C	ASTM D1525

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

(2) Test specimen, thickness 3.2 mm with 50mm/min test speed

(3) Based on injection molded sheet

STORAGE AND HANDLING

Polyethylene resin should be stored in a manner to prevent a direct exposure to sunlight and/or heat. The storage area should also be dry and preferably do not 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 polyethylene resin within 6 months after delivery.



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