SABIC® HDPE P6006

HIGH DENSITY POLYETHYLENE FOR PIPE

DESCRIPTION

P6006 is black compound high density (class MRS 10 - PE 100) Polyethylene with multimodal distribution of molecular mass. It is specifically designed for pressure Pipe applications. It provides excellent stress crack resistance properties (ESCR) combined with very good long term hydrostatic strength.

TYPICAL APPLICATIONS

P6006 Pressure pipes for drinking water, irrigation, gas distribution and waste water pipes. It is also recommended for manufacture of chemical liners and containers.

TYPICAL PROPERTY VALUES

Revision 20260824

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR) (1)			
@ 190°C & 5 kg load (1)	0.23	g/10 min	ISO 1133
@ 190°C & 21.6 kg load (1)	6.2	g/10 min	ISO 1133
Carbon black content (1)	2.25	%	ISO 6964
Density at 23°C (1)	959	kg/m³	ASTM D1505
MECHANICAL PROPERTIES			
Tensile Strength at Yield (2)	23	MPa	ASTM D638
Tensile Elongation at Yield (2)	9	%	ISO 527-1/-2
Tensile modulus (2)	900	MPa	ASTM D638
Charpy Impact Notched @ 23°C (3)	26	kJ/m²	ISO 179
Charpy Impact Notched @ -30°C (3)	13	kJ/m²	ISO 179
Hardness (Shore D) (3)	63	-	ASTM D2240
THERMAL PROPERTIES			
Vicat Softening Point @ 50N (VST/B)	74	°C	ISO 306
OIT (210°C)	>20	Minutes	EN 728

(1) Typical values: not to be construed as specification limits.
(2) Test specimen according to ISO 527-2 type 1 BA, thickness 2mm with 50mm/min test speed.
(3) Properties are based on 20 m film produced at4 BUR using 100% P6006.

PROCESSING CONDITIONS

Typical processing conditions for P6006

Melt temperature: 190-220°C. It is recommended to dry the material prior to processing.

FOOD REGULATION

Detailed information is provided in the relevant Material Safety Datasheet and or Standard Food Declaration, available on the Internet (www.SABIC.com). Additional specific information can be requested via your local Sales Office.

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STORAGE AND HANDLING

Polyethylene material / compound 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 don't exceed 50°C. SABIC would not give warranty to bad storage conditions lead to quality deterioration and inadequate product performance. It is advisable to process PE resin within 6 months after delivery.

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