

SABIC® HDPE P6006

HIGH DENSITY POLYETHYLENE FOR PIPE -
REGION GLOBAL

DESCRIPTION

P6006 is black compound high density (class MRS 10 - PE 100) Polyethylene with bimodal 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 20170212

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate ⁽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 @ 23°C ⁽¹⁾	959	kg/m ³	ISO 1183
MECHANICAL PROPERTIES ⁽³⁾			
Hardness (Shore D) ⁽²⁾	63	-	ISO 868
Tensile Strength @ Yield ⁽³⁾	23	MPa	ISO 527-2
Tensile Elongation @ Yield ⁽³⁾	9	%	ISO 527-2
Tensile Modulus ⁽³⁾	900	MPa	ISO 899
Charpy Impact Notched @ 23°C ⁽²⁾	26	kJ/m ²	ISO 179
Charpy Impact Notched @ -30°C ⁽²⁾	13	kJ/m ²	ISO 179
THERMAL PROPERTIES			
Vicat Softening Point @ 50N (VST/B)	74	°C	ISO 306
OIT (210°C)	>	min	EN 728

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

(2) Properties are based on 20 m film produced at 4 BUR using 100% P6006.

(3) Test specimen according to ISO 527-2 type 1 BA, thickness 2mm with 50mm/min test speed.



PROCESSING CONDITIONS

Typical processing conditions for P6006 Melt temperature: 190-220°C

FOOD REGULATION

P6006 grade is suitable for Food contact application. Detailed information is provided in relevant material safety Datasheet and for additional specific information please contacts SABIC local representative for certificate.

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.

DISCLAIMER

The information contained herein may include typical properties of our products or their typical performances when used in certain typical applications. Actual properties of our products, in particular when used in conjunction with any third party material(s) or for any non-typical applications, may differ from typical properties.

It is the customer's responsibility to inspect and test our product(s) in order to satisfy itself as to the suitability of the product(s) for its and its customers particular purposes. The customer is responsible for the appropriate, safe and legal use, processing and handling of all product(s) purchased from us.

Nothing herein is intended to be nor shall it constitute a warranty whatsoever, in particular, warranty of merchantability or fitness for a particular purpose.

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