



P6006 (Provisional Data sheet)

Black High Density Polyethylene for Pipes

Product Description

P6006 is black compounded high density, designed to be class MRS 10 - PE 100, Polyethylene with a 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

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

Typical data

Properties	Unit	Value ⁽¹⁾	Test Method
Resin Properties			
Melt Flow Rate @ 190°C & 5 kg load	g/10 min.	0.23	ISO 1133
@ 190°C & 21.6 kg load		6.2	
Carbon Black content	%	2.25	ISO 6964
Density @ 23°C	kg/m ³	959	ISO 1183
Mechanical Properties⁽²⁾			
Tensile Strength @ Yield ⁽³⁾	MPa	23	ISO 527-2
Tensile Elongation @ Yield ⁽³⁾	%	9	
Tensile Modulus ⁽³⁾	MPa	900	
Charpy Impact Notched @ 23°C	kJ/m ²	26	ISO 179
@ -30°C		13	
Hardness (Shore D)	-	63	ISO 868
Thermal Properties			
Vicat Softening Point @ 50N (VST/B)	°C	74	ISO 306
DSC (Melting Point)	°C	124 - 128	DIN 53765
OIT (210°C)	Min	>20	EN 728

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

(2) Based on Compression molded sheet

(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 is:

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 contact 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 which may lead to quality deterioration and inadequate product performance. It is advisable to process PE resin within 6 months after delivery.

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NOTICE: The information and data contained herein are believed to be correct and given in good faith, but because of the many particular factors which are outside our knowledge and control and affect the use of product, no warranty is given or is to be implied with respect to such information, nor do we offer any immunity against infringement.

POLYMERS

SABIC[®] HDPE PIPE P6006

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TYPICAL APPLICATIONS

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TYPICAL DATA

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Carbon Black content	%	2.25	ISO 6964
Density @ 23°C	Kg/m ³	959	ISO 1183
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Tensile Strength @ Yield ⁽³⁾	MPa	23	ISO 527-2
Tensile Elongation @ Yield ⁽³⁾	%	9	
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Charpy Impact Notched			
@ 23°C	kJ/m ²	26	ISO 179
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Hardness (Shore D)	-	63	ISO 868
THERMAL PROPERTIES			
Vicat Softening Point @ 50N (VST/B)	°C	74	ISO 306
OIT (210°C)	Min	> 20	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

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