



HIGH DENSITY POLYETHYLENE 6006 (PE 100, BLACK)

Producer: Saudi Basic Industries Corporation (Sabic) /Saudi Arabia

Description: **P6006** is a black High Density Polyethylene (**HDPE**) resin specifically designed for Pipe Extrusion. It provides excellent stress crack resistance properties (ESCR) combined with very good long term hydrostatic strength.

Typical Applications: **SABIC HDPE P6006** (black) is a grade, which has a high density (class MRS10 - PE 100) and a bimodal distribution of the molecular mass. An universal grade for pipe extrusion which, due to a keen combination of properties, is particularly suitable for drinking water, gas distribution and waste water pipes. It is also used for the manufacture of chemical apparatus and containers.

DESCRIPTION OF PROPERTIES	UNIT	VALUE ⁽¹⁾	TEST METHOD
<u>Polymer Properties</u>			
Melt Flow Rate (MFR)	g/10 min.		ISO 1133
(190 ⁰ C/5.0 kg)		0.22	
(190 ⁰ C/21.6 kg)		6.4	
Carbon Black Content	%	2.25	ISO 6964
Density ⁽¹⁾	kg/m ³	959	ISO 1183
<u>Mechanical Properties</u> ^{(1) (2)}			
Tensile Test ^{(3) (4)}			
Stress at Yield	Mpa	23	
Strain at Yield	%	9	ISO 527-2
Tensile Modulus	Mpa	900	
Charpy Impact Notched			
at 23 ⁰ C	kJ/m ²	26	
at -30 ⁰ C	kJ/m ²	13	ISO 179
Hardness Shore D	-	63	ISO 868
<u>Thermal Properties</u>			
Vicat Softening Temperature ^{(1) (2)} at 50 N (VST/B)	⁰ C	74	ISO 306
DSC Test (Melting Point)	⁰ C	124-128	DIN 53765
OIT 210 ⁰ C	min	>20	EN 728

⁽¹⁾ - Compression moulding conditions of test specimen (according to ISO 293): moulding temp: 160 °C, cooling rate: 40 °C/min

⁽²⁾ - Conditioning of test specimen: temp. 23 °C, relative humidity 50 %, 24 hours

⁽³⁾ - Speed of testing: 50 mm/min

⁽⁴⁾ - Test specimen according to ISO 527-2 type 1BA, thickness 2 mm

Processing Conditions : Recommended melt temperatures: 190-220⁰C

Food Regulations: Certificate is available on request

Barbaros Mah. Dereboyu Cad. Uphill Court Towers A Blok K:25 D:139 Bati Atasehir, Istanbul /Turkey

Phone: +902166883310, Fax:+902166883311