

SABIC® HDPE P6006N

HIGH DENSITY POLYETHYLENE FOR PIPE

DESCRIPTION

P6006N is a grade which has a high density (classified as PE4710) and multimodal distribution of the molecular mass. An universal grade for pipe extrusion which, due to keen combination of properties. It can be used for telecommunication, corrugated and spiral pipes.

TYPICAL APPLICATIONS

P6006N is a natural High Density Polyethylene (HDPE) resin specifically designed for Pipe Extrusion. It provides excellent stress crack resistance properties (ESCR) combined with very long term hydrostatic strength.

TYPICAL PROPERTY VALUES

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
Density at 23°C ⁽¹⁾	949	kg/m ³	ASTM D1505
MECHANICAL PROPERTIES			
Tensile Strength at Yield ⁽²⁾	23	MPa	ASTM D638
Tensile Elongation at Yield ⁽²⁾	10	%	ISO 527-1/-2
Tensile modulus ⁽²⁾	850	MPa	ASTM D638
Charpy Notched Impact Strength @ 23°C ⁽³⁾	25	kJ/m ²	ISO 179
Flexural Creep Modulus (4point,1min) ⁽³⁾	1050	MPa	DIN 19537-2
Hardness (Shore D) ⁽³⁾	64	-	ASTM D2240
THERMAL PROPERTIES			
Vicat Softening Point	74	°C	ASTM D1525
Brittleness Temperature	<80	°C	ASTM D746
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) Based on compression molded sheet

PROCESSING CONDITIONS

Typical processing conditions for P6006N Melt temperature: 190-220°C