

# SABIC® HDPE P6006N

## HIGH DENSITY POLYETHYLENE FOR PIPE

### DESCRIPTION

P6006N is a grade which has a high density (classified as PE4710) and bimodal 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

Revision 20180228

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>POLYMER PROPERTIES</b>			
<b>Melt Flow Rate <sup>(1)</sup></b>			
@ 190°C & 5 kg load <sup>(1)</sup>	0.23	g/10 min	ISO 1133
@ 190°C & 21.6 kg load <sup>(1)</sup>	6.2	g/10 min	ISO 1133
<b>Density at 23°C <sup>(1)</sup></b>	949	kg/m <sup>3</sup>	ASTM D1505
<b>MECHANICAL PROPERTIES</b>			
<b>Tensile Strength at Yield <sup>(2)</sup></b>	23	MPa	ASTM D638
<b>Tensile Elongation at Yield <sup>(2)</sup></b>	10	%	ISO 527-1/-2
<b>Tensile modulus <sup>(2)</sup></b>	850	MPa	ASTM D638
<b>Charpy Notched Impact Strength @ 23°C <sup>(3)</sup></b>	25	kJ/m <sup>2</sup>	ISO 179
<b>Flexural Creep Modulus (4point,1min) <sup>(3)</sup></b>	1050	MPa	DIN 19537-2
<b>Hardness (Shore D) <sup>(3)</sup></b>	64	-	ASTM D2240
<b>THERMAL PROPERTIES</b>			
<b>Vicat Softening Point</b>	74	°C	ASTM D1525
<b>Brittleness Temperature</b>	<-80	°C	ASTM D746
<b>OIT (210°C)</b>	>20	min	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

## HEALTH, SAFETY AND FOOD CONTACT REGULATIONS

Detailed information is provided in relevant Material Safety Datasheet and or Standard Food Declaration, Additional specific information can be requested via your local Sales Office.

## 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

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.