

## TECHNICAL DATA SHEET

### P6006NA – ( HDPE PIPE – HIGH DENSITY POLYETHYLENE )

#### **Product Description**

- P6006NA is a high-density Polyethylene (potentially ASTM PE4710 cell class requirements) with multimodal distribution of the molecular mass. This is natural color grade suitable for pipe extrusion with excellent combination of properties. It is also suitable for use in telecommunication ducting, corrugated pipes and spiral pipes.

#### **Applications:**

- P6006NA 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.

#### **Origin:** SAUDI

- SABIC

| <b>Polymer Properties</b>                   | <b>Typical Values</b> | <b>Units</b>      | <b>Test Methods</b> |
|---|-----------------------|-------------------|---------------------|
| <b><u>Melt Flow Rate</u></b> <sup>(1)</sup> |                       |                   |                     |
| @ 190° & 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            |
| Density @ 23°C                              | 949                   | kg/m <sup>3</sup> | ASTM D1505          |
| <b><u>Mechanical Properties</u></b>         |                       |                   |                     |
| Hardness (Shore D) <sup>(2)</sup>           | 63                    | -                 | ASTM D2240          |
| Tensile Strength @ Yield <sup>(3)</sup>     | 23                    | MPa               | ASTM D638           |
| Tensile Elongation @ Yield                  | 10                    | %                 | ISO 527             |
| Tensile Modulus                             | 850                   | MPa               | ASTM D638           |
| Charpy Impact Notched @ 23°C                | 25                    | kJ/m <sup>2</sup> | ISO 179             |
| Flexural Creep Modulus (4 point, 1min)      | 1050                  | MPa               | DIN 19537-2         |
| <b><u>Thermal Properties</u></b>            |                       |                   |                     |
| Vicat Softening Point @ 50N (VST/B)         | 74                    | °C                | ISO 306             |
| OIT (210°C)                                 | > 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 P6006NA: Melt temperature: 190-220°C.

➤ **Storage 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.

