

SABIC® HDPE B5428

HIGH DENSITY POLYETHYLENE

DESCRIPTION

HDPE B5428 is a medium molecular weight high density polyethylene resin used for blow molding. Blow molded parts made from this resin exhibit high stiffness, good impact strength and good Environmental Stress-Cracking Resistance (ESCR).

TYPICAL APPLICATIONS

Small and medium size containers for household and industrial chemicals

TYPICAL PROPERTY VALUES

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|----------------|-------------------|--------------|
| POLYMER PROPERTIES ⁽¹⁾ | | | |
| Melt Flow Rate (MFR) | | | |
| at 190°C and 2.16 kg | 0.3 | g/10 min | ASTM D1238 |
| at 190°C and 21.6 kg | 28 | g/10 min | ASTM D1238 |
| Density at 23°C | 954 | kg/m ³ | ASTM D1505 |
| MECHANICAL PROPERTIES ⁽²⁾ | | | |
| 1% Secant Modulus | 1200 | MPa | ASTM D638 |
| Tensile Strength at Yield | 27 | MPa | ASTM D638 |
| Tensile Elongation at Break | >700 | % | ASTM D638 |
| Flexural Modulus | 1100 | MPa | ISO 178/1A |
| Izod Impact Strength | 130 | J/m | ASTM D256 |
| Hardness (Shore D) | 68 | - | ASTM D2240 |
| ESCR (100% Igepal), F50 | >100 | Hrs | ASTM D1693B |
| THERMAL PROPERTIES | | | |
| Vicat Softening Point | 127 | °C | ASTM D1525 |

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

(2) Based on compression molded sheet.

PROCESSING CONDITIONS

Processing conditions: Typical processing conditions: 160 – 200 °C

STORAGE AND HANDLING

Polyethylene material 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 such as color change, bad smell and inadequate product performance. It is advisable to process PE resin within 6 months after delivery.