

SABIC® HDPE B4660

HIGH DENSITY POLYETHYLENE

DESCRIPTION

B4660 grade are medium molecular weight High Density Polyethylene homopolymer for blow molding Applications. They are primarily Designed for imparting high rigidity, toughness and good processability. These unique properties offer the possibility to reduce weight at very good top load strength. B4660: Suitable for Dairy products and Juice Packaging

TYPICAL APPLICATIONS

B4660 Series resins are primarily intended for blow molding bottles for the food and beverage industry. The grade B4660AB is specifically recommended for water packaging applications. The grades are intended to meet customer specifications in respect of purity, healthiness and organoleptic. They can also be used in other hollow thin-walled parts and profile extrusions. They are not recommended for packaging Environmentally active materials such as soaps, detergents, shampoos, etc.

TYPICAL PROPERTY VALUES

Revision 20211207

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|----------------|-------------------|--------------|
| POLYMER PROPERTIES ⁽¹⁾ | | | |
| Melt Flow Rate (MFR) | | | |
| @ 190°C & 2.16 kg load | 0.7 | g/10 min | ASTM D1243 |
| @ 190°C & 5 kg load | 2.8 | g/10 min | ISO 1133 |
| @ 190°C & 21.6 kg load | 46 | g/10 min | ISO 1133 |
| Density at 23°C | 961 | kg/m ³ | ASTM D1505 |
| MECHANICAL PROPERTIES ⁽²⁾ | | | |
| 1% Secant Modulus | >1000 | MPa | ASTM D638 |
| Tensile Strength at Yield | 30 | MPa | ASTM D638 |
| Tensile Strength at Break | 18 | MPa | ASTM D638 |
| Tensile Elongation at Break | 500 | % | ASTM D638 |
| Flexural Strength | 28 | MPa | ASTM D790 |
| Flexural Modulus | 1100 | MPa | ISO 178/1A |
| Izod Impact Strength | 150 | J/m | ASTM D256 |
| Hardness (Shore D) | 66 | - | ASTM D2240 |
| THERMAL PROPERTIES | | | |
| Vicat Softening Point | 127 | °C | ASTM D1525 |
| Brittleness Temperature | <-75 | °C | ASTM D746 |

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

(2) Based on compression molded sheet.

PROCESSING CONDITIONS

Typical processing conditions for B4660 are:

Barrel temperature: 170-200°C

Melt temperature: 180-210°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.

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