



BM1052

High Density Polyethylene for Blow molding

Product Description

BM1052 grade is high molecular weight High Density Polyethylene copolymer with broad molecular weight distribution. It has excellent processability and exhibits very high impact strength, stiffness and superior environmental stress crack resistance.

Typical Applications

BM1052 resin is intended for blow molding of large containers such as closed head shipping containers, fuel tanks and containers for industrial use. It can also be extruded into sheets giving exceptionally high impact strength.

Typical data

| Properties | Unit | Value ⁽¹⁾ | Test Method |
|---|-------------------|----------------------|--------------|
| Melt Flow Rate @ 190°C & 2.16 kg load | g/10 min. | 0.05 | ASTM D 1238 |
| @ 190°C & 5 kg load | | 0.38 | |
| @ 190°C & 21.6 kg load | | 10 | |
| Density @ 23°C | kg/m ³ | 952 | ASTM D 1505 |
| Mechanical Properties ⁽²⁾ | | | |
| 1% Secant Modulus | MPa | 1000 | ASTM D 638 |
| Tensile Strength @ Yield | MPa | 27 | ASTM D 638 |
| Tensile Strength @ Break | MPa | 18 | ASTM D 638 |
| Tensile Elongation @ Break | % | >500 | ASTM D 638 |
| Flexural Strength | MPa | 26 | ASTM D 790 |
| Flexural Modulus | MPa | 1050 | ASTM D 790 |
| Izod Impact | J/m | 300 | ASTM D 256 |
| Hardness (Shore D) | - | 63 | ASTM D 2240 |
| ESCR (10% Igepal), F ₅₀ * | Hrs | >1200 | ASTM D 1693B |
| ESCR (10% Igepal), F ₅₀ * | Hrs | 720 | ASTM D 1693B |
| Thermal Properties | | | |
| Vicat Softening Point | °C | 125 | ASTM D 1525 |
| Brittleness Temperature | °C | < -75 | ASTM D 746 |

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

(2) Based on Compression molded sheet

Processing Conditions

Typical processing conditions for BM1052 are:

Barrel temperature: 200 - 250°C

Melt temperature: 200 - 230°C

Food Regulation

BM1052 grade is not intended for Food contact application. Detailed information is provided in relevant Material Safety Datasheet and for additional specific information please contact SABIC local representative for certificate.

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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