

SABIC® HDPE B1054

HIGH DENSITY POLYETHYLENE

DESCRIPTION

B1054 is a High Density Polyethylene specially developed for blow molding and jerry cans. The material offers high stiffness, good processability and excellent combination of stiffness/ESCR.

TYPICAL APPLICATIONS

B1054 is specially designed for standard jerry cans, Light weight jerry cans and UN approved jerry cans. The grade can be used in food contact applications.

TYPICAL PROPERTY VALUES

Revision 20230113

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|--|----------------|----------|--------------|
| POLYMER PROPERTIES (1) | | | |
| Melt Flow Rate (MFR) | | | |
| at 190°C and 5 kg load | 0.45 | g/10 min | ISO 1133 |
| at 190°C and 21.6 kg load | 9.5 | g/10 min | ISO 1133 |
| Density at 23°C ⁽¹⁾ | 954 | kg/m³ | ASTM D1505 |
| MECHANICAL PROPERTIES (2) | | | |
| Tensile modulus | 1250 | MPa | ASTM D638 |
| Tensile Stress at Yield | 27 | MPa | ISO 527-1/-2 |
| Tensile Strain at Yield | 10 | % | ISO 527-1/-2 |
| Tensile Impact Strength at -30°C (Notched) | 90 | kJ/m² | ISO 8256 |
| Hardness (Shore D) | 62 | - | ASTM D2240 |
| FNCT (3.5 MPa, 2 % Igepal BC/9, 80°C) | 40 | Hrs | ISO 16770 |

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

PROCESSING CONDITIONS

Recommended processing temperature: 180 - 220 °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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⁽²⁾ Based on compression molded sheet. Compression moulding of test specimen according to ISO 1872-2 Conditioning of test specimen: temp. 23 °C, relative humidity 50 %, 24 hours