

SABIC® HDPE CC3054

HIGH DENSITY POLYETHYLENE

DESCRIPTION

SABIC® HDPE CC3054 is a high density polyethylene copolymer injection molding grade. Its narrow molecular weight distribution and high flow results in low warpage, good rigidity, good gloss and fast molding cycles.

SABIC® HDPE CC3054 is typically used for caps and closures applications and thin wall articles.

This product is not intended for and must not be used in any pharmaceutical/medical applications.

TYPICAL PROPERTY VALUES

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|-------------------------------------------------------|----------------|-------------------|--------------|
| POLYMER PROPERTIES | | | |
| Melt Flow Rate (MFR) | | | |
| at 190 °C and 2.16 kg | 30 | dg/min | ISO 1133 |
| Density ⁽¹⁾ | 954 | kg/m ³ | ISO 1183 |
| MECHANICAL PROPERTIES ^{(1) (2)} | | | |
| Tensile test ^{(3) (4)} | | | |
| stress at yield | 26 | MPa | ISO 527-2 |
| stress at break | 25 | MPa | ISO 527-2 |
| strain at break | 200 | % | ISO 527-2 |
| tensile modulus | 1100 | MPa | ISO 527-2 |
| Flexural test | | | |
| Flexural modulus | 1250 | MPa | ISO 178 |
| Flexural strength | 27 | MPa | ISO 178 |
| Izod impact notched | | | |
| at 23 °C | 3 | kJ/m ² | ISO 180/A |
| Hardness Shore D | 61 | - | ISO 868 |
| ESCR on Caps ⁽⁵⁾ | 10 | h | SABIC method |
| THERMAL PROPERTIES | | | |
| Heat deflection temperature ^{(1) (2)} | | | |
| at 0.45 MPa (HDT/B) | 82 | °C | ISO 75-2 |
| Vicat Softening Temperature ^{(1) (2)} | | | |
| at 10 N (VST/A) | 125 | °C | ISO 306 |
| DSC test | | | |
| melting point | 132 | °C | ISO 11357-3 |
| enthalpy change | 205 | J/g | ISO 11357-3 |

(1) Compression moulding of test specimen according to ISO 1872-2

(2) Conditioning of test specimen: temp. 23 °C, relative humidity 50 %, 24 hours

(3) Speed of testing: 50 mm/min

(4) Test specimen according to ISO 527-2 type 1BA, thickness 2 mm

(5) Determined in 10% Igepal CO-630 at 40 °C, 6 bar internal water pressure, thickness 1 mm