

SABIC® HDPE M200056

HIGH DENSITY POLYETHYLENE FOR
INJECTION MOLDING

DESCRIPTION

M200056 is a High Density Polyethylene grade with narrow molecular weight distribution suitable for injection molding applications. It has been designed to give good flow properties, low warp age with good dimensional stability and high gloss.

TYPICAL APPLICATIONS

M200056 is recommended for housewares, food containers, toys, caps and closures etc.

TYPICAL PROPERTY VALUES

Revision 20170519

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|----------------|-------------------|--------------|
| POLYMER PROPERTIES | | | |
| Melt Flow Rate | | | |
| at 190°C and 2.16 kg | 20 | g/10 min | ASTM D1238 |
| Density at 23°C ⁽¹⁾ | 956 | kg/m ³ | ASTM D1505 |
| MECHANICAL PROPERTIES ⁽³⁾ (1) (2) | | | |
| 1% Secant Modulus ⁽²⁾ | 800 | MPa | ASTM D638 |
| Tensile Strength at Yield ⁽²⁾ | 24 | MPa | ASTM D638 |
| Tensile Strength at Break ⁽²⁾ | 12 | MPa | ASTM D638 |
| Tensile Elongation at Break ⁽²⁾ | > 200 | % | ASTM D638 |
| Flexural Strength ⁽²⁾ | 23 | MPa | ASTM D790 |
| Flexural Modulus ⁽²⁾ | 825 | MPa | ASTM D790 |
| Izod Impact Strength ⁽²⁾ | 30 | J/m | ASTM D256 |
| Hardness (Shore D) ⁽²⁾ | 60 | - | ASTM D2240 |
| ESCR (100% Igepal), F50 ⁽³⁾ | 3 | hrs | ASTM D1693B |
| ESCR (10% Igepal), F50 ⁽³⁾ | 2 | hrs | ASTM D1693B |
| THERMAL PROPERTIES | | | |
| Vicat Softening Point | 124 | °C | ASTM D1525 |
| Brittleness Temperature | < -75 | °C | ASTM D746 |

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

(2) Based on Injection molded specimens.

(3) Based on compression molded sheet

PROCESSING CONDITIONS

Typical processing conditions for M200056 are:

Melt temperature: 180 - 250°C

Mold temperature: 15-60°C

Injection pressure: 600 - 1000 Bar

HEALTH, SAFETY AND FOOD CONTACT REGULATIONS

M200056 is suitable 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.

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

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.

DISCLAIMER

The information contained herein may include typical properties of our products or their typical performances when used in certain typical applications. Actual properties of our products, in particular when used in conjunction with any third party material(s) or for any non-typical applications, may differ from typical properties.

It is the customer's responsibility to inspect and test our product(s) in order to satisfy itself as to the suitability of the product(s) for its and its customers particular purposes. The customer is responsible for the appropriate, safe and legal use, processing and handling of all product(s) purchased from us.

Nothing herein is intended to be nor shall it constitute a warranty whatsoever, in particular, warranty of merchantability or fitness for a particular purpose.

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