

SABIC® LLDPE R50035S

Linear low density polyethylene for Rotational moulding

Description.

SABIC® LLDPE R50035S is a medium density polyethylene (MDPE) copolymer grade. It is designed to provide excellent stress crack resistance, excellent mechanical properties with high rigidity, toughness, gloss and very low warpage. The resin does contain UV stabilizers and is intended for outdoor applications. It is recommended that the SABIC® LLDPE R50035S resin should be grinded before use in rotational molding applications.

Mechanical properties.

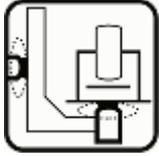
Test specimens are prepared from compression moulded sheet made according to ASTM D-1928, procedure C.

Typical data.

Revision 20050607

| Properties | Units SI | Values | Test methods |
|--|-------------------|----------------|--------------|
| Polymer properties | | | |
| Melt flow rate (MFR) at 190 °C and 2.16 kg | g/10 min | 5.0 | ISO 1133 |
| Density | kg/m ³ | 935 | ISO 1183 |
| Mechanical properties | | | |
| Tensile test | | | ASTM D 638 |
| stress at yield | MPa | 18 | |
| stress at break | MPa | 11.5 | |
| strain at break | % | 700 | |
| secant modulus at 1% elongation | MPa | 500 | |
| Flexural test | | | ASTM D 790 |
| Flexural modulus | MPa | 724 | |
| Flexural strength | MPa | 19.3 | |
| Hardness Shore D | - | 69 | ASTM D 2240 |
| ESCR (100% Igepal), F50 | h | >300 | ASTM D 1693A |
| Thermal properties | | | |
| Vicat softening temperature | °C | 115 | ASTM D 1525 |
| Brittleness temperature | °C | <-75 | ASTM D 746 |

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General information.

SABIC Europe's assortment contains both butene and hexene grades. SABIC® LLDPE, produced by gasphase technology, is characterized by a high purity, an excellent extrusion performance and draw down capability due to its low gel content. SABIC® LLDPE is stabilized with an antioxidant package suitable for film purposes.

Health, Safety and Food Contact regulations.

Detailed information is provided in the relevant Material Safety Datasheet and or Standard Food Declaration, available on the Internet (www.SABIC-europe.com). Additional specific information can be requested via your local Sales Office.

Quality.

SABIC Europe is fully certified in accordance with the internationally accepted quality standard ISO 9001-2000. It is SABIC Europe's policy to supply materials that meet customers specifications and needs and to keep up its reputation as a pre-eminent, reliable supplier of e.g. polyethylenes.

Environment.

The environmental aspects of any packaging material do not only imply waste issues but have to be considered in relation with the use of natural resources, the preservations of foodstuffs, etc. SABIC Europe considers polyethylene to be an environmentally efficient packaging material. Its low specific energy consumption and insignificant emissions to air and water designate polyethylene as the ecological alternative in comparison with the traditional packaging materials.

Recycling.

Recycling of packaging materials is supported by SABIC Europe whenever ecological and social benefits are achieved and where a social infrastructure for selective collecting and sorting of packaging is fostered. Whenever 'thermal' recycling of packaging (i.e. incineration with energy recovery) is carried out, polyethylene -with its fairly simple molecular structure and low amount of additives- is considered to be a trouble-free fuel.