

SABIC® LLDPE 6318BJ

LINEAR LOW DENSITY POLYETHYLENE

DESCRIPTION

6318BJ resin is a hexene comonomer based Linear Low Density Polyethylene TNPP free grade designed to provide easy processability and specially formulated for optimum thermal stability at high processing temperatures used during production of Cast films. Films produced using this resin gives excellent optical properties, toughness, puncture resistance and tear strength.

TYPICAL APPLICATIONS

It is recommended for pellet wrap (pre-stretch), high performance draw down films and other general purpose applications where high strength is required.

TYPICAL PROPERTY VALUES

Revision 20201209

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|--|----------------|-------------------|--------------|
| POLYMER PROPERTIES ^{(1) (2)} | | | |
| Melt Flow Rate (MFR) | | | |
| at 190 °C and 2.16 kg | 2.8 | g/10 min | ASTM D1238 |
| Density | 918 | kg/m ³ | ASTM D1505 |
| MECHANICAL PROPERTIES | | | |
| Dart Impact Strength | 120 | g | ASTM D1709 |
| OPTICAL PROPERTIES ^{(1) (2)} | | | |
| Haze | 4 | % | ASTM D1003 |
| Gloss | | | |
| at 60° | 92 | - | ASTM D2457 |
| FILM PROPERTIES | | | |
| Tensile Properties ^{(1) (2)} | | | |
| stress at break, MD | 33 | MPa | ASTM D882 |
| stress at break, TD | 24 | MPa | ASTM D882 |
| strain at break, MD | 600 | % | ASTM D882 |
| strain at break, TD | 800 | % | ASTM D882 |
| stress at yield, MD | 13 | MPa | ASTM D882 |
| stress at yield, TD | 10 | MPa | ASTM D882 |
| 1% secant modulus, MD | 180 | MPa | ASTM D882 |
| 1% secant modulus, TD | 190 | MPa | ASTM D882 |
| Puncture resistance | 64 | J/m | SABIC method |
| Elmendorf Tear Strength | | | |
| MD | 200 | g | ASTM D1922 |
| TD | 800 | g | ASTM D1922 |
| THERMAL PROPERTIES ^{(1) (2)} | | | |
| Vicat Softening Temperature | 99 | °C | ASTM D1525 |

(1) Properties have been measured by producing 30 μ film with 2.5 BUR using 100% 6318BJ.

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

PROCESSING CONDITIONS

Typical processing conditions for 6318BJ are:

Melt temperature: 265 - 300 °C

Chill roll temperature: 20 °C

STORAGE AND HANDLING

Polyethylene resin 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 do not 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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