

# SABIC® LLDPE BX202

LINEAR LOW DENSITY POLYETHYLENE

## DESCRIPTION

SABIC® LLDPE BX202 is a linear low density polyethylene resin typically used for the production of biaxial orientated polyethylene (BOPE) via tenter frame technology. Typical applications are food and non-food packaging. SABIC® BX202 facilitates mono-material PE structures. This grade is also available as certified bio-renewable and circular polymer.

Film properties: Film of 25 µm, produced on commercial tenter frame with >1000 kg/h output.

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

## TYPICAL PROPERTY VALUES

Revision 20210331

| PROPERTIES                         | TYPICAL VALUES | UNITS             | TEST METHODS |
|------------------------------------|----------------|-------------------|--------------|
| <b>POLYMER PROPERTIES</b>          |                |                   |              |
| <b>Melt Flow Rate (MFR)</b>        |                |                   |              |
| at 190 °C and 2.16 kg              | 2.1            | dg/min            | ISO 1133     |
| <b>Density</b>                     | 921            | kg/m <sup>3</sup> | ASTM D1505   |
| <b>OPTICAL PROPERTIES</b>          |                |                   |              |
| <b>Gloss (45°)</b>                 | 90             | %                 | ASTM D2457   |
| <b>Haze</b>                        | 5              | %                 | ASTM D1003   |
| <b>FILM PROPERTIES</b>             |                |                   |              |
| <b>Dart Impact F50</b>             | 350            | g                 | ASTM D1709   |
| <b>Tensile test film</b>           |                |                   |              |
| Stress at break MD                 | 70             | MPa               | ASTM D882    |
| Modulus of elasticity MD           | 510            | MPa               | ASTM D882    |
| Stress at break TD                 | 150            | MPa               | ASTM D882    |
| Strain at break TD                 | 50             | %                 | ASTM D882    |
| Modulus of elasticity TD           | 850            | MPa               | ASTM D882    |
| Strain at break MD                 | 230            | %                 | ASTM D882    |
| <b>THERMAL PROPERTIES</b>          |                |                   |              |
| <b>Vicat Softening Temperature</b> |                |                   |              |
| at 10 N (VST/A)                    | 100            | °C                | ISO 306      |
| <b>DSC test</b>                    |                |                   |              |
| melting point                      | 124            | °C                | SABIC method |

## ENVIRONMENT AND RECYCLING

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 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 of packaging materials is supported by SABIC 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.

## STORAGE AND HANDLING

Polyethylenes resins (in pelletised or powder form) should be stored in such a way that it prevents exposure to direct sunlight and/or heat, as this may lead to quality deterioration. The storage location should also be dry, dust free and the ambient temperature should not exceed 50 °C. Not complying with these precautionary measures can lead to a degradation of the product which can result in colour changes, bad smell and inadequate product performance. It is also advisable to process polyethylene resins (in pelletised or powder form) within 6 months after delivery, this because also excessive aging of polyethylene can lead to a deterioration in quality.

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