

## SABIC® LLDPE 218BE

LINEAR LOW DENSITY POLYETHYLENE

### DESCRIPTION

SABIC® LLDPE 218BE is a butene linear low density polyethylene resin with an additive package typically designed for a broader range of food applications (TNPP free). The good thermal stability allows to use the resin in critical extrusion processing conditions.

#### Application

SABIC® LLDPE 218BE is typically used for food applications (lamination film, barrier film) but can also be used in industrial packaging and as blending partner with other SABIC® PE resins in both blown and cast film applications.

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

### TYPICAL PROPERTY VALUES

Revision 20260319

| 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>                                 | 918            | kg/m³  | ASTM D1505    |
| <b>DSC</b>                                     |                |        |               |
| melting point                                  | 122            | °C     | SABIC method  |
| <b>MECHANICAL PROPERTIES</b>                   |                |        |               |
| <b>Tensile test</b>                            |                |        |               |
| strain at break                                | 790            | %      | ASTM D638     |
| stress at yield                                | 12             | MPa    | ASTM D638     |
| strain at yield                                | 16             | %      | ASTM D638     |
| stress at break                                | 17             | MPa    | ASTM D638     |
| <b>Flexural test</b>                           |                |        |               |
| Secant modulus at 1% elongation                | 254            | MPa    | ASTM D790     |
| <b>Hardness Shore D</b>                        | 48             | -      | ISO 868       |
| <b>OPTICAL PROPERTIES</b>                      |                |        |               |
| Gloss (45°)                                    | 92             | %      | ASTM D2457    |
| Haze                                           | 1.2            | %      | ASTM D1003    |
| <b>FILM PROPERTIES</b>                         |                |        |               |
| <b>Dart impact</b>                             | 2.8            | kJ/m   | ISO 7765-2    |
| <b>Tear strength TD</b>                        | 185            | kN/m   | ISO 6383-2    |
| <b>Protrusion Puncture resistance</b>          | 2.2            | J      | ASTM D5748-95 |
| <b>Elastic recovery &amp; Stress retention</b> |                |        |               |
| Stress retention                               | 79.9           | %      | ASTM D5459-95 |
| Elastic recovery                               | 52.6           | %      | ASTM D5459-95 |
| <b>Peel cling</b>                              |                |        |               |
| 200% pre-stretch                               | 0.05           | N/mm   | ASTM D5458-95 |
| 0% pre-stretch                                 | 0.06           | N/mm   | ASTM D5458-95 |
| <b>THERMAL PROPERTIES</b>                      |                |        |               |
| <b>Vicat Softening Temperature</b>             |                |        |               |
| at 10 N (VST/A)                                | 96             | °C     | ISO 306       |

© 2026 Copyright by SABIC. All rights reserved

CHEMISTRY THAT MATTERS™



| PROPERTIES                   | TYPICAL VALUES | UNITS | TEST METHODS |
|------------------------------|----------------|-------|--------------|
| <b>DSC test</b>              |                |       |              |
| melting point                | 122            | °C    | SABIC method |
| <b>HIGHLIGHT PROPERTIES</b>  |                |       |              |
| Ultimate pre-stretch level   | 310            | %     | -            |
| Retention force at 60 sec    | 0.97           | kg    | -            |
| <b>ELECTRICAL PROPERTIES</b> |                |       |              |
| Volume resistivity           | 5.0E15         | Ω.cm  | ASTM D257    |
| Dissipation Factor           |                |       |              |
| @ 60 Hz                      | 1.0E3          | -     | ASTM D150    |
| Dielectric Constant          |                |       |              |
| @ 60 Hz                      | 2.17           | -     | ASTM D150    |
| Dielectric Strength          |                |       |              |
| at 500 V/sec                 | 55             | V/μm  | ASTM D149    |

### 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.

### 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.

### DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

