

# SABIC® LLDPE 218NF

LINEAR LOW DENSITY POLYETHYLENE

## DESCRIPTION

218NF is a butene-1 copolymerized linear low density polyethylene intended for films, without anti-block and slip agent. It has excellent processing ability, good tensile properties, impact strength and optical properties.

## TYPICAL PROPERTY VALUES

Revision 20211207

| PROPERTIES                              | TYPICAL VALUES | UNITS             | TEST METHODS |
|---|----------------|-------------------|--------------|
| <b>PHYSICAL</b>                         |                |                   |              |
| Density                                 | 0.918          | g/cm <sup>3</sup> | ASTM D792    |
| <b>POLYMER PROPERTIES</b>               |                |                   |              |
| <b>Melt Flow Rate (MFR)</b>             |                |                   |              |
| @ 190°C & 2.16 kg load                  | 2.0            | g/10 min          | ASTM D1238   |
| <b>MECHANICAL PROPERTIES</b>            |                |                   |              |
| Dart Impact Strength <sup>(1) (2)</sup> | 77             | g                 | ASTM D1709   |
| <b>OPTICAL PROPERTIES</b>               |                |                   |              |
| Haze <sup>(1)</sup>                     | 13.8           | %                 | ASTM D1003   |
| <b>*Gloss</b>                           |                |                   |              |
| Gloss (45°) <sup>(1)</sup>              | 46.8           | %                 | ASTM D2457   |
| <b>FILM PROPERTIES <sup>(1)</sup></b>   |                |                   |              |
| Tear strength MD Elmendorf              | 6.6            | g/μm              | ASTM D1922   |
| Tear strength TD Elmendorf              | 9.1            | g/μm              | ASTM D1922   |
| <b>Tensile test film <sup>(1)</sup></b> |                |                   |              |
| Strength at break, MD                   | 38             | MPa               | ASTM D882    |
| Strength at break, TD                   | 35             | MPa               | ASTM D882    |
| Elongation at break, MD                 | 715            | %                 | ASTM D882    |
| Elongation at break, TD                 | 751            | %                 | ASTM D882    |
| Secant modulus (1%), MD                 | 283            | MPa               | ASTM D882    |
| Secant modulus (1%), TD                 | 330            | MPa               | ASTM D882    |
| <b>THERMAL PROPERTIES</b>               |                |                   |              |
| *Melting point                          | 122            | °C                | SABIC method |

(1) Properties have been measured by producing 30 μm 100% pure blown film with BUR 2.0.

(2) method A

## STORAGE AND HANDLING

The 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 that 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.

## PROCESSING CONDITIONS

Typical processing conditions for SABIC® 218NF are: Die gap: 2 mm, Melt temperature: 200°C.

## APPLICATIONS

Typical applications include agriculture films, liners, laminated and coextruded films, stretch films and compounding.

## MEDICAL & FOOD REGULATION

The grades are not intended for and must not be used in any pharmaceutical / medical applications.

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