

## SABIC® LLDPE 218WJ

## LINEAR LOW DENSITY POLYETHYLENE

## DESCRIPTION

218WJ is a butene Linear Low Density Polyethylene TNPP free grade suitable for general-purpose packaging. It is easy to process giving good tensile properties, impact strength and optical properties. 218WJ contains slip and antiblock additives.

## TYPICAL APPLICATIONS

Lamination film, thin liners, shopping bags, carrier bags, garbage bags, coextruded films, consumer packaging and other general-purpose applications.

## TYPICAL PROPERTY VALUES

Revision 20211108

| PROPERTIES                          | TYPICAL VALUES | UNITS             | TEST METHODS |
|-------------------------------------|----------------|-------------------|--------------|
| POLYMER PROPERTIES                  |                |                   |              |
| Melt Flow Rate (MFR)                |                |                   |              |
| at 190°C and 2.16 kg                | 2              | g/10 min          | ASTM D1238   |
| Density                             | 918            | kg/m <sup>3</sup> | ASTM D1505   |
| FORMULATION                         |                |                   |              |
| Slip agent                          | ☑              | -                 | -            |
| Anti block agent                    | ☑              | -                 | -            |
| MECHANICAL PROPERTIES               |                |                   |              |
| Dart Impact Strength <sup>(1)</sup> | 85             | g/μm              | ASTM D1709   |
| OPTICAL PROPERTIES <sup>(1)</sup>   |                |                   |              |
| Haze                                | 13             | %                 | ASTM D1003   |
| Gloss                               |                |                   |              |
| at 60°                              | 80             | -                 | ASTM D2457   |
| FILM PROPERTIES <sup>(1)</sup>      |                |                   |              |
| Tensile Properties                  |                |                   |              |
| stress at break, MD                 | 35             | MPa               | ASTM D882    |
| stress at break, TD                 | 29             | MPa               | ASTM D882    |
| strain at break, MD                 | 700            | %                 | ASTM D882    |
| strain at break, TD                 | 750            | %                 | ASTM D882    |
| stress at yield, MD                 | 12             | MPa               | ASTM D882    |
| stress at yield, TD                 | 10             | MPa               | ASTM D882    |
| 1% secant modulus, MD               | 220            | MPa               | ASTM D882    |
| 1% secant modulus, TD               | 260            | MPa               | ASTM D882    |
| Elmendorf Tear Strength             |                |                   |              |
| MD                                  | 130            | g                 | ASTM D1922   |
| TD                                  | 320            | g                 | ASTM D1922   |
| THERMAL PROPERTIES                  |                |                   |              |
| Vicat Softening Point               | 98             | °C                | ASTM D1525   |

(1) Mechanical properties have been measured by producing 30 μ film with 2.5 BUR using 100% 218NJ.

## PROCESSING CONDITIONS

Typical processing conditions for 218WJ are:  
Melt temperature: 185 - 205°C, Blow up ratio: 2.0 - 3.0

## 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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