# SABIC® LDPE HP2027NN

LOW DENSITY POLYETHYLENE

## DESCRIPTION

HP2027NN is a Low Density Polyethylene grade with increase density. It typically exhibits better draw down ability with high output. Films typically have excellent optics and high rigidity. It contains no slip, no antiblock and no antioxidant additives.

## TYPICAL APPLICATIONS

Thin shrink film, lamination film, packaging film for food and industrial goods, bags & pouches. These grades are typically suitable where high optics, enhance stiffness and down gauging, are required.

## TYPICAL PROPERTY VALUES

Revision 20201102

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| **POLYMER PROPERTIES** | | | |
| **Melt Flow Rate (MFR)** | | | |
| at 190°C and 2.16 kg | 2.0 | g/10 min | ASTM D1238 |
| **Density** | | | |
| at 23°C | 927 | kg/m³ | ASTM D1505 |
| **OPTICAL PROPERTIES** | | | |
| **Haze** (1) | 4 | % | ASTM D1003 |
| **Gloss** | | | |
| at 45° | 72 | % | ASTM D2457 |
| **FILM PROPERTIES** | | | |
| **Tensile Properties** | | | |
| stress at break, MD | 27 | MPa | ASTM D882 |
| stress at break, TD | 18 | MPa | ASTM D882 |
| strain at break, MD | 326 | % | ASTM D882 |
| strain at break, TD | 522 | % | ASTM D882 |
| stress at yield, MD | 11 | MPa | ASTM D882 |
| stress at yield, TD | 18 | MPa | ASTM D882 |
| 1% secant modulus, MD | 260 | MPa | ASTM D882 |
| 1% secant modulus, TD | 290 | MPa | ASTM D882 |
| **Tear Resistance** | | | |
| MD | 9 | g/µm | ASTM D1922 |
| TD | 14 | g/µm | ASTM D1922 |
| **Dart Impact F50** | 2 | g | ASTM D1709 |
| **THERMAL PROPERTIES** | | | |
| **Vicat Softening Temperature** | 92 | °C | ASTM D1525 |

(1) Properties have been measured by producing 30 µm film with 2.5 BUR using 100% HP2027NN.

## PROCESSING CONDITIONS

Typical processing conditions for HP2027NN are:

Barrel temperature: 160 - 190°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.

## DISCLAIMER