

SABIC® LDPE HP4027JN

LOW DENSITY POLYETHYLENE

DESCRIPTION

HP4027JN 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. HP4027JN contains slip and antiblock 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 20201103

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|------------------------------|-------------------------------------|-------------------|--------------|
| POLYMER PROPERTIES | | | |
| Melt Flow Rate (MFR) | | | |
| at 190°C and 2.16 kg | 4.0 | g/10 min | ASTM D1238 |
| Density | | | |
| at 23°C | 927 | kg/m ³ | ASTM D1505 |
| FORMULATION | | | |
| Slip agent | <input checked="" type="checkbox"/> | - | - |
| Anti block agent | <input checked="" type="checkbox"/> | - | - |
| MECHANICAL PROPERTIES | | | |
| Dart Impact Strength | 3 | g/μm | ASTM D1709 |
| OPTICAL PROPERTIES | | | |
| Haze ⁽¹⁾ | 5 | % | ASTM D1003 |
| Gloss | | | |
| at 45° | 72 | - | ASTM D2457 |
| FILM PROPERTIES | | | |
| Tensile Properties | | | |
| stress at break, MD | 19 | MPa | ASTM D882 |
| stress at break, TD | 19 | MPa | ASTM D882 |
| strain at break, MD | 256 | % | ASTM D882 |
| strain at break, TD | 536 | % | ASTM D882 |
| stress at yield, MD | 11 | MPa | ASTM D882 |
| stress at yield, TD | 12 | MPa | ASTM D882 |
| 1% secant modulus, MD | 270 | MPa | ASTM D882 |
| 1% secant modulus, TD | 266 | MPa | ASTM D882 |
| Tear Resistance | | | |
| MD | 10 | g/μm | ASTM D1922 |
| TD | 14 | g/μm | ASTM D1922 |
| 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% HP4027JN.

PROCESSING CONDITIONS

Typical processing conditions for HP4027JN 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

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.