

POLYMERS

SABIC[®] LDPE

HP4027N

Low Density Polyethylene for Blown Film
(Provisional Datasheet)

PRODUCT DESCRIPTION:

SABIC[®] LDPE HP4027N is a Low Density Polyethylene grade without slip and anti-block additives, with increased density. It typically exhibits good draw down ability with higher output. Films typically exhibit excellent optics, good heat seal properties combined with high rigidity.

TYPICAL APPLICATIONS:

Surface protection films, thin general purpose films where high optics, enhanced stiffness and down gauging are required.

This product is not intended for use in medical and pharmaceutical applications.

TYPICAL PROPERTY VALUES:

| PROPERTIES | Unit | Value ⁽¹⁾ | Test Method |
|--|-------------------|----------------------|-------------|
| Melt Flow Rate @ 190°C & 2.16 kg load | g/10 min. | 4 | ISO 1133 |
| Density @ 23°C | kg/m ³ | 927 | ISO 1183 |
| THERMAL PROPERTIES | | | |
| Vicat Softening Temperature (A50 (50°C/h 10N)) | °C | 97.0 | ISO 306 |
| Melting Temperature | °C | 114 | ISO 3146 |
| FILM MECHANICAL PROPERTIES ⁽²⁾ | | | |
| Tensile Stress @ Yield | MPa | 13 | ISO 527, -2 |
| Tensile Stress @ Break (MD) | MPa | 20 | ISO 527, -3 |
| Tensile Stress @ Break (TD) | MPa | 17 | ISO 527, -3 |
| Tensile Strain @ Break (MD) | % | 350 | ISO 527, -3 |
| Tensile Strain @ Break (TD) | % | 600 | ISO 527, -3 |
| Tensile Modulus | MPa | 300 | ISO 527, -2 |
| Dart Drop Impact | g | 90 | ASTM D 1709 |
| Coefficient of Friction | % | > 80 | ISO 8295 |
| FILM OPTICAL PROPERTIES ⁽²⁾ | | | |
| Haze | % | < 7 | D 1003 |
| Gloss (20°) | % | > 80 | D 2457 |
| Gloss (60°) | % | > 115 | D 2457 |

(1) Typical values; not to be construed as specifications

(2) Measured on 50 micron thickness blown film extruded at melt temperature of 170°C with BUR of 2.5

PROCESSING CONDITIONS:

Typical processing conditions for HP4027N are:

Melt temperature : 150 - 190°C

Blow up ratio : 2 - 3

Recommended thickness : 15 - 40 micron

FOOD REGULATION

SABIC® LDPE HP4027N resins are suitable for Food contact application. Detailed information is provided in relevant Material Safety Datasheet and for additional specific information please contact SABIC local representative for certificate.

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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