

SABIC® LDPE HP2025NN

LOW DENSITY POLYETHYLENE

DESCRIPTION

LDPE HP2025NN Low Density Polyethylene Resin has been designed with an optimum balance of melt strength and drawability to give excellent performance in cast film, foam, blown film and bubble film extrusion. When properly fabricated, LDPE HP2025NN displays: excellent processability; low neck-down (cast film); very good toughness and impact properties; and good tear strength. In foam extrusion, LDPE HP2025NN gives an ideal balance between cell growth and stabilization to allow the production of very low density products without voids. The resin does not contain any slip or antiblock additive. LDPE HP2025NN has a very low level of gels.

TYPICAL APPLICATIONS

Foam.
Bubble film.
General purpose blown film.

TYPICAL PROPERTY VALUES

Revision 20210627

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES ⁽¹⁾			
Melt Flow Rate (MFR)			
at 190°C and 2.16kg	2.0	g/10 min	ASTM D1238
Density			
at 23°C	0.923	g/cm ³	ASTM D792
MECHANICAL PROPERTIES ⁽²⁾			
Dart Impact Strength	2	g/μm	ASTM D1709
OPTICAL PROPERTIES			
Gloss (45°)	62	%	ASTM D2457
Haze	8	%	ASTM D1003
FILM PROPERTIES ^{(1) (2)}			
Tensile Properties			
1% secant modulus, MD	190	MPa	ASTM D882
1% secant modulus, TD	210	MPa	ASTM D882
stress at yield, MD	12	MPa	ASTM D882
stress at yield, TD	12	MPa	ASTM D882
stress at break, MD	20	MPa	ASTM D882
stress at break, TD	15	MPa	ASTM D882
strain at break, MD	300	%	ASTM D882
strain at break, TD	550	%	ASTM D882
Elmendorf Tear Strength ⁽²⁾			
MD	15	g/μm	ASTM D1922
TD	12	g/μm	ASTM D1922
THERMAL PROPERTIES			
Vicat Softening Point	98.0	°C	ASTM D1525

(1) Include test thickness: Properties have been measured by producing 50 μm film with 2.5 BUR using 100%

(2) These are typical properties and are not to be construed as specification

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CHEMISTRY THAT MATTERS™



PROCESSING CONDITIONS

Typical processing conditions for LDPE HP2025NN are:
Barrel temperature: 160- 200°C, Blow up ratio: 2.5:1

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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