

SABIC® LDPE HP0321NN

LOW DENSITY POLYETHYLENE

DESCRIPTION

LDPE HP0321NN Low Density Polyethylene Resin can be readily extruded using conventional blown film techniques utilizing melt temperatures between 170 and 230°C. LDPE HP0321NN resin, when properly fabricated, shows a good combination of processability, stiffness and physical properties. LDPE HP0321NN has very low gel levels

TYPICAL APPLICATIONS

HP0321NN can be used for Heavy-duty bags, industrial shrink films, construction and agricultural films.

TYPICAL PROPERTY VALUES

Revision 20211203

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES ⁽¹⁾			
Melt Flow Rate (MFR)			
at 190°C and 2.16kg	0.25	g/10 min	ISO 1133
Density			
at 23°C	0.921	g/cm ³	ASTM D792
MECHANICAL PROPERTIES ^{(1) (2)}			
Dart Impact Strength	4.5	g/μm	ASTM D1709
FILM PROPERTIES ^{(1) (2)}			
Tensile Properties ⁽²⁾			
1% secant modulus, MD	128	MPa	ASTM D882
1% secant modulus, TD	128	MPa	ASTM D882
stress at yield, MD	11	MPa	ASTM D882
stress at yield, TD	10	MPa	ASTM D882
stress at break, MD	31	MPa	ASTM D882
stress at break, TD	30	MPa	ASTM D882
strain at break, MD	470	%	ASTM D882
strain at break, TD	530	%	ASTM D882
Elmendorf Tear Strength ⁽¹⁾			
MD	2.7	g/μm	ASTM D1922
TD	4.8	g/μm	ASTM D1922
THERMAL PROPERTIES			
Vicat Softening Temperature	96.0	°C	ASTM D1525

(1) Typical values: not to be construed as specification limits.

(2) Properties have been measured by producing 50 μ film with 2.5 BUR using 100% HP0321N.

PROCESSING CONDITIONS

Typical processing conditions for HP0321NN are:
Barrel temperature: 170- 230°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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