

# 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
<b>POLYMER PROPERTIES <sup>(1)</sup></b>			
<b>Melt Flow Rate (MFR)</b>			
at 190°C and 2.16kg	0.25	g/10 min	ISO 1133
<b>Density</b>			
at 23°C	0.921	g/cm <sup>3</sup>	ASTM D792
<b>MECHANICAL PROPERTIES <sup>(1) (2)</sup></b>			
<b>Dart Impact Strength</b>			
	4.5	g/μm	ASTM D1709
<b>FILM PROPERTIES <sup>(1) (2)</sup></b>			
<b>Tensile Properties <sup>(2)</sup></b>			
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
<b>Elmendorf Tear Strength <sup>(1)</sup></b>			
MD	2.7	g/μm	ASTM D1922
TD	4.8	g/μm	ASTM D1922
<b>THERMAL PROPERTIES</b>			
<b>Vicat Softening Temperature</b>	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.

## 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.