SABIC® LDPE HP2023NN

LOW DENSITY POLYETHYLENE

DESCRIPTION

HP2023NN is a Low Density Polyethylene grade suitable for general-purpose packaging. It exhibits better draw down, good optical and mechanical properties. HP2023NN contains no slip, no antiblock and no antioxidant additives.

TYPICAL APPLICATIONS

Thin shrink film, lamination film, produce bags, textile packaging, soft goods packaging, general-purpose bags with good optics and t-shirts carrier bags.

TYPICAL PROPERTY VALUES

Revision 20260313

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
190°C and 2.16 kg	2.0	g/10 min	ASTM D1238
Density			
at 23°C	923	kg/m³	ASTM D1505
OPTICAL PROPERTIES (1)			
Haze	8	%	ASTM D1003
Gloss			
at 45°	61	%	ASTM D2457
FILM PROPERTIES (1)			
Tensile Properties			
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	588	%	ASTM D882
stress at yield, MD	12	MPa	ASTM D882
stress at yield, TD	12	MPa	ASTM D882
1% secant modulus, MD	235	MPa	ASTM D882
1% secant modulus, TD	271	MPa	ASTM D882
Tear Resistance			
MD	15	g/µm	ASTM D1922
TD	11	g/µm	ASTM D1922
Dart Impact F50	2	g	ASTM D1709
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% HP2023NN.

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CHEMISTRY THAT MATTERS™

PROCESSING CONDITIONS

Typical processing conditions for HP2023NN 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.

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