SABIC® LDPE HP4027JN

LOW DENSITY POLYETHYLENE

DESCRIPTION

HP4027JN is a Low Density Polyethylene grade with increase density. It typically exhibits better draw down ability with high output. Films typically have excellent optics and high rigidity. HP4027JN contains slip and antiblock additives.

TYPICAL APPLICATIONS

Thin shrink film, lamination film, packaging film for food and industrial goods, bags & pouches. These grades are typically suitable where high optics, enhance stiffness and down gauging are required.

TYPICAL PROPERTY VALUES

Revision 20201103

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
at 190°C and 2.16 kg	4.0	g/10 min	ASTM D1238
Density			
at 23°C	927	kg/m³	ASTM D1505
FORMULATION			
Slip agent	☑	-	-
Anti block agent	☑	-	-
MECHANICAL PROPERTIES			
Dart Impact Strength	3	g/µm	ASTM D1709
OPTICAL PROPERTIES			
Haze (1)	5	%	ASTM D1003
Gloss			
at 45°	72	-	ASTM D2457
FILM PROPERTIES			
Tensile Properties			
stress at break, MD	19	MPa	ASTM D882
stress at break, TD	19	MPa	ASTM D882
strain at break, MD	256	%	ASTM D882
strain at break, TD	536	%	ASTM D882
stress at yield, MD	11	MPa	ASTM D882
stress at yield, TD	12	MPa	ASTM D882
1% secant modulus, MD	270	MPa	ASTM D882
1% secant modulus, TD	266	MPa	ASTM D882
Tear Resistance			
MD	10	g/µm	ASTM D1922
TD	14	g/µm	ASTM D1922
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% HP4027JN.

PROCESSING CONDITIONS

Typical processing conditions for HP4027JN 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.

DISCLAIMER