

# SABIC® LLDPE 118NJ

LINEAR LOW DENSITY POLYETHYLENE  
REGION ASIA

## DESCRIPTION

SABIC® LLDPE 118NJ is a butene linear low density polyethylenesin typically used for general purpose applications. Films produced from this resin are tough with good puncture resistance, high tensile strength and good hot tack properties. 118NJ is TNPP free and it does not contain slip and antiblock additive.

## TYPICAL APPLICATIONS

Shipping sacks, ice bags, frozen food bags, stretch wrap film, produce bags, liners, carrier bags, garbage bags, agricultural films, laminated and coextruded films for meat wrap, frozen food and other food packaging, shrink film (for blending with LDPE), industrial consumer packaging, and high clarity film applications if blended with (10 - 20%) LDPE.

## TYPICAL PROPERTY VALUES

Revision 20211108

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>POLYMER PROPERTIES</b>			
<b>Melt Flow Rate (MFR)</b>			
at 190°C and 2.16 kg	1	g/10 min	ASTM D1238
<b>Density</b>	918	kg/m <sup>3</sup>	ASTM D1505
<b>MECHANICAL PROPERTIES</b>			
<b>Dart Impact Strength</b> <sup>(1)</sup>	145	g/μm	ASTM D1709
<b>OPTICAL PROPERTIES</b> <sup>(1)</sup>			
<b>Haze</b>	10	%	ASTM D1003
<b>Gloss</b>			
at 60°	60	-	ASTM D2457
<b>FILM PROPERTIES</b> <sup>(1)</sup>			
<b>Tensile Properties</b>			
stress at break, MD	40	MPa	ASTM D882
stress at break, TD	32	MPa	ASTM D882
strain at break, MD	750	%	ASTM D882
strain at break, TD	800	%	ASTM D882
stress at yield, MD	11	MPa	ASTM D882
stress at yield, TD	12	MPa	ASTM D882
1% secant modulus, MD	220	MPa	ASTM D882
1% secant modulus, TD	260	MPa	ASTM D882
<b>Puncture resistance</b>	68	J/mm	SABIC method
<b>Elmendorf Tear Strength</b>			
MD	165	g	ASTM D1922
TD	300	g	ASTM D1922
<b>THERMAL PROPERTIES</b>			
<b>Vicat Softening Temperature</b>	100	°C	ASTM D1525

(1) Properties have been measured by producing 30 μm film with 2.5 BUR using 100% 118NJ.

## ENVIRONMENT AND RECYCLING

The environmental aspects of any packaging material do not only imply waste issues but have to be considered in relation with the use of natural resources, the preservations of foodstuffs, etc. SABIC Europe considers polyethylene to be an environmentally efficient packaging material. Its low specific energy consumption and insignificant emissions to air and water designate polyethylene as the ecological alternative in comparison with the traditional packaging materials. Recycling of packaging materials is supported by SABIC Europe whenever ecological and social benefits are achieved and where a social infrastructure for selective collecting and sorting of packaging is fostered. Whenever 'thermal' recycling of packaging (i.e. incineration with energy recovery) is carried out, polyethylene -with its fairly simple molecular structure and low amount of additives- is considered to be a trouble-free fuel.

## PROCESSING CONDITIONS

Typical processing conditions for 118N1 are:

Melt temperature: 195°C - 215°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 polyethylene resin within 6 months after delivery.

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