

SABIC® LLDPE 118NJA

LINEAR LOW DENSITY POLYETHYLENE
REGION AMERICAS

DESCRIPTION

SABIC® LLDPE 118NJA is a butene linear low density polyethylene resin 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. 118NJA is TNPP-free and does not contain slip and antiblock additives.

This product is not intended for and must not be used in any pharmaceutical/medical applications.

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

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
at 190 °C and 2.16 kg	1.0	g/10 min	ASTM D1238
Density	918	kg/m ³	ASTM D1505
OPTICAL PROPERTIES ⁽¹⁾			
Haze	15	%	ASTM D1003
Gloss (45°)	55	%	ASTM D2457
FILM PROPERTIES			
Tensile test film ⁽¹⁾			
Stress at break MD	43	MPa	ASTM D882
Stress at break TD	35	MPa	ASTM D882
Strain at break MD	570	%	ASTM D882
Strain at break TD	850	%	ASTM D882
Stress at yield MD	10	MPa	ASTM D882
Stress at yield TD	11	MPa	ASTM D882
Dart Impact Strength	95	g	ASTM D1709
Secant modulus 1% MD	190	MPa	ASTM D882
Secant modulus 1% TD	220	MPa	ASTM D882
Puncture Force	45	N	SABIC method
Puncture Energy	2.2	J	SABIC method
Elmendorf Tear Strength MD	120	g	ASTM D1922
Elmendorf Tear Strength TD	400	g	ASTM D1922
THERMAL PROPERTIES			
DSC test			
melting point	121	°C	SABIC method

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

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 118NJ 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.