

SABIC® LLDPE 218NJA

LINEAR LOW DENSITY POLYETHYLENE
REGION AMERICAS

DESCRIPTION

SABIC® LLDPE 218NJA is a butene Linear Low Density Polyethylene TNPP free grade suitable for general-purpose packaging. It is easy to process giving good tensile properties, impact strength and optical properties. 218NJA contains no slip and no antiblock additives.

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

TYPICAL APPLICATIONS

Lamination film, thin liners, shopping bags, carrier bags, garbage bags, coextruded films, consumer packaging and other general-purpose applications.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
at 190 °C and 2.16 kg	2.0	g/10 min	ASTM D1238
Density	918	kg/m ³	ASTM D1505
OPTICAL PROPERTIES ⁽¹⁾			
Haze	11	%	ASTM D1003
Gloss (45°)	80	%	ASTM D2457
FILM PROPERTIES			
Tensile test film ⁽¹⁾			
Stress at break, MD	40	MPa	ASTM D882
Stress at break, TD	31	MPa	ASTM D882
Strain at break, MD	600	%	ASTM D882
Strain at break, TD	810	%	ASTM D882
Stress at yield, MD	10	MPa	ASTM D882
Strength at Yield TD	11	MPa	ASTM D882
Dart Impact Strength	85	g	ASTM D1709
1% secant modulus, MD	195	MPa	ASTM D882
1% secant modulus, TD	210	MPa	ASTM D882
Elmendorf Tear Strength MD	110	g	ASTM D1922
Elmendorf Tear Strength TD	360	g	ASTM D1922
THERMAL PROPERTIES			
DSC test			
Melting Point	121	°C	SABIC method

(1) Mechanical properties have been measured by producing 30 µ film with 2.5 BUR using 100% 218NJ.

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 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 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 218NJA are:

Melt temperature: 185 - 205°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.