

SABIC® LLDPE 518NJ

LINEAR LOW DENSITY POLYETHYLENE
REGION ASIA

DESCRIPTION

SABIC® LLDPE 518NJ is a fractional melt-index butene linear low density polyethylene resin. Films produced from this resin have high toughness, good puncture resistance, good heat sealing behaviour and excellent machinability on conversion lines. This grade is TNPP free.

TYPICAL APPLICATIONS

Heavy duty shipping sacks, ice bags, frozen food bags, potato bags and agriculture films.

TYPICAL PROPERTY VALUES

Revision 20201209

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
at 190°C and 2.16 kg	0.5	g/10 min	ASTM D1238
Density at 23°C	918	kg/m³	ASTM D1505
MECHANICAL PROPERTIES			
Dart Impact Strength	200	g/μm	ASTM D1709
OPTICAL PROPERTIES			
Haze	10	%	ASTM D1003
Gloss			
at 60°	87	-	ASTM D2457
FILM PROPERTIES			
Tensile Properties			
stress at break, MD	43	MPa	ASTM D882
stress at break, TD	34	MPa	ASTM D882
strain at break, MD	700	%	ASTM D882
strain at break, TD	850	%	ASTM D882
stress at yield, MD	13	MPa	ASTM D882
stress at yield, TD	11	MPa	ASTM D882
1% secant modulus, MD	220	MPa	ASTM D882
1% secant modulus, TD	260	MPa	ASTM D882
Puncture resistance	89	J/m	SABIC method
Elmendorf Tear Strength			
MD	135	g	ASTM D1922
TD	400	g	ASTM D1922
THERMAL PROPERTIES			
Vicat Softening Temperature	100	°C	ASTM D1525

PROCESSING CONDITIONS

Typical processing conditions for 518NJ are:

Melt temperature: 190 - 230°C

Blow up ratio: 2.0 - 3.0

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CHEMISTRY THAT MATTERS™



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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