SABIC® LLDPE 518NJ

LINEAR LOW DENSITY POLYETHYLENE

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

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	918	kg/m³	ASTM D1505
OPTICAL PROPERTIES			
Haze (1)	13	%	ASTM D1003
Gloss (45°)	55	‰	ASTM D2457
FILM PROPERTIES			
Puncture resistance	750	J/m	SABIC method
Tear strength MD	30	kN/m	ISO 6383-2
Tensile test film			
Stress at break MD	40	MPa	ISO 527-3
Modulus of elasticity MD	170	MPa	ISO 527-3
Yield stress TD	11	MPa	ISO 527-3
Strain at break TD	800	%	ISO 527-3
Stress at break TD	32	MPa	ISO 527-3
Strain at break MD	550	%	ISO 527-3
Modulus of elasticity TD	180	MPa	ISO 527-3
Tear strength TD	180	kN/m	ISO 6383-2
Impact strength	27	kJ/m	ASTM D4272
THERMAL PROPERTIES			
Vicat Softening Temperature			
at 10 N (VST/A)	104	°C	ISO 306
DSC test			
melting point	120	°C	SABIC method

(1) Properties have been measured by producing 50 µ film with 2.5 BUR using 100% 518NJ.

PROCESSING CONDITIONS

Typical processing conditions for 518NJ are:

Melt temperature: 190 - 230°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.