

SABIC® LLDPE 6821NJ

LINEAR LOW DENSITY POLYETHYLENE

DESCRIPTION

6821NJ is a fractional melt index hexene copolymer based Linear Low Density Polyethylene TNPP free grade suitable for high strength packaging applications. Films produced using this resin gives outstanding toughness, excellent puncture resistance, good sealing characteristics and tear resistance. 6821NJ contains no slip and no antiblock additive.

TYPICAL APPLICATIONS

Heavy duty shipping sacks, lamination films, Ice and frozen food bags, agricultural films, stretch wrap 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	0.8	g/10 min	ASTM D1238
Density	921	kg/m ³	ASTM D1505
MECHANICAL PROPERTIES			
Dart Impact Strength	150	g/μm	ASTM D1709
OPTICAL PROPERTIES			
Haze ⁽¹⁾	12	%	ASTM D1003
Gloss			
at 60°	80	-	ASTM D2457
FILM PROPERTIES			
Tensile Properties			
stress at break, MD	48	MPa	ASTM D882
stress at break, TD	40	MPa	ASTM D882
strain at break, MD	680	%	ASTM D882
strain at break, TD	850	%	ASTM D882
stress at yield, MD	12	MPa	ASTM D882
stress at yield, TD	13	MPa	ASTM D882
1% secant modulus, MD	280	MPa	ASTM D882
1% secant modulus, TD	300	MPa	ASTM D882
Puncture resistance	89	J/m	SABIC method
Elmendorf Tear Strength			
MD	350	g	ASTM D1922
TD	550	g	ASTM D1922
THERMAL PROPERTIES			
Vicat Softening Temperature	101	°C	ASTM D1525

(1) Properties have been measured by producing 30 μm film with 2.5 BUR using 100% 6821NJ.



PROCESSING CONDITIONS

Typical processing conditions for 6812NJ are:

Melt temperature: 205 - 220°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.

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