

SABIC® LLDPE 121WJ

LINEAR LOW DENSITY POLYETHYLENE

DESCRIPTION

121WJ is a high quality Linear Low Density Polyethylene TNPP free grade for blown film. It has excellent processability and films produced from this resin have good clarity, excellent puncture resistance, high tensile strength and good sealing characteristics. 121WJ contains slip and antiblock additive.

TYPICAL APPLICATIONS

Ice bags, frozen food bags, produce bags, bread bags, carrier bags, garment bags, laminated films for food packaging.

TYPICAL PROPERTY VALUES

Revision 20260304

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
190°C and 2.16 kg	1	g/10 min	ASTM D1238
Density	918	kg/m³	ASTM D1505
FORMULATION			
Slip agent	☒	-	-
Anti static agent	☒	-	-
MECHANICAL PROPERTIES			
Dart Impact Strength	100	g/μm	ASTM D1709
OPTICAL PROPERTIES			
Haze ⁽¹⁾	9	%	ASTM D1003
Gloss			
at 60°	90	-	ASTM D2457
FILM PROPERTIES			
Tensile Properties			
stress at break, MD	36	MPa	ASTM D882
stress at break, TD	30	MPa	ASTM D882
strain at break, MD	880	%	ASTM D882
strain at break, TD	830	%	ASTM D882
stress at yield, MD	9	MPa	ASTM D882
stress at yield, TD	8	MPa	ASTM D882
1% secant modulus, MD	200	MPa	ASTM D882
1% secant modulus, TD	180	MPa	ASTM D882
Puncture resistance	60	J/mm	SABIC method
Elmendorf Tear Strength			
MD	110	g	ASTM D1922
TD	450	g	ASTM D1922
THERMAL PROPERTIES			
Vicat Softening Temperature	100	°C	ASTM D1525

(1) Properties have been measured by producing 30 μm film with 2.5 BUR using 100% 121WJ.

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CHEMISTRY THAT MATTERS™



PROCESSING CONDITIONS

Typical processing conditions for 121WJ are:
Melt temperature: 190 - 210°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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