

SABIC SABIC® 118NJ

SABIC® LLDPE 118NJ is a butene linear low density polyethylenesin typically used for general purpose applications. Films produced from this resin are tough with good puncture resistance, high tensile strength and good hot tack properties. 118NJ is TNPP free and it does not contain slip and antiblock additive.

Information provided by SABIC

Physical Properties	Metric	English	Comments
Density	0.918 g/cc	0.0332 lb/in ³	ASTM D1505

Melt Flow	1.0 g/10 min @Load 2.16 kg, Temperature 190 °C	1.0 g/10 min @Load 4.76 lb, Temperature 374 °F	ASTM D1238
-----------	--	--	------------

Mechanical Properties	Metric	English	Comments
Film Tensile Strength at Yield, MD	11.0 MPa	1600 psi	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 118NJ.; ASTM D882

Film Tensile Strength at Yield, TD	12.0 MPa	1740 psi	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 118NJ.; ASTM D882
------------------------------------	----------	----------	---

Film Elongation at Break, MD	750 %	750 %	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 118NJ.; ASTM D882
------------------------------	-------	-------	---

Film Elongation at Break, TD	800 %	800 %	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 118NJ.; ASTM D882
------------------------------	-------	-------	---

Puncture Energy	68.0 J	50.2 ft-lb	J/mm; Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 118NJ.; SABIC method
-----------------	--------	------------	--

Elmendorf Tear Strength MD

165 g

165 g

Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 118NJ.; ASTM D1922

Elmendorf Tear Strength TD

300 g

300 g

Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 118NJ.; ASTM D1922

Dart Drop

145 g/micron

3680 g/mil

Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 118NJ.; ASTM D1709

Film Tensile Strength at Break, MD

40.0 MPa

5800 psi

Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 118NJ.; ASTM D882

Film Tensile Strength at Break, TD

32.0 MPa

4640 psi

Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 118NJ.; ASTM D882

1% Secant Modulus, MD

220 MPa

31900 psi

Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 118NJ.; ASTM D882

1% Secant Modulus, TD

260 MPa

37700 psi

Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 118NJ.; ASTM D882

Thermal Properties	Metric	English	Comments
Vicat Softening Point	100 °C	212 °F	ASTM D1525

Optical Properties	Metric	English	Comments
Haze	10 % @Thickness 0.0300 mm	10 % @Thickness 0.00118 in	2.5 BUR using 100% 118NJ.; ASTM D1003

Gloss

60 %

60 %

60°; Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 118NJ.; ASTM D2457