

# SABIC® 318BJ

SABIC® LLDPE 318BJ is a butene linear low density polyethylene resin typically designed for easy processing and specially formulated for optimum thermal stability at high temperatures used in cast film extrusion. Cast film produced from SABIC® LLDPE 318BJ exhibit excellent optical properties, puncture resistance and tear strength .SABIC® LLDPE 318BJ is TNPP free. This product is not intended for and must not be used in any pharmaceutical/medical applications.

Physical Properties	Metric	English	Comments
Density	0.918 g/cc	0.0332 lb/in <sup>3</sup>	ASTM D1505
Melt Flow	2.8 g/10 min @Load 2.16 kg, Temperature 190 °C	2.8 g/10 min @Load 4.76 lb, Temperature 374 °F	ASTM D1238
Mechanical Properties	Metric	English	Comments
Film Tensile Strength at Yield, MD	13.0 MPa	1890 psi	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 318BJ.; ASTM D882
Film Tensile Strength at Yield, TD	10.0 MPa	1450 psi	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 318BJ.; ASTM D882
Film Elongation at Break, MD	470 %	470 %	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 318BJ.; ASTM D882
Film Elongation at Break, TD	600 %	600 %	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 318BJ.; ASTM D882
Puncture Energy	57.0 J	42.0 ft-lb	J/m; Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 318BJ.; SABIC method
Elmendorf Tear Strength MD	65 g	65 g	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 318BJ.; 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% 318BJ.; ASTM D1922
Dart Drop Test	75.0 g	0.165 lb	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 318BJ.; ASTM D1709
Film Tensile Strength at Break, MD	28.0 MPa	4060 psi	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 318BJ.; ASTM D882
Film Tensile Strength at Break, TD	18.0 MPa	2610 psi	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 318BJ.; ASTM D882
1% Secant Modulus, MD	135 MPa	19600 psi	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 318BJ.; ASTM D882
1% Secant Modulus, TD	140 MPa	20300 psi	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 318BJ.; ASTM D882

Thermal Properties	Metric	English	Comments
Vicat Softening Point	98.0 °C	208 °F	ASTM D1525

Optical Properties	Metric	English	Comments
Haze	5.0 % @Thickness 0.0300 mm	5.0 % @Thickness 0.00118 in	2.5 BUR using 100% 318BJ.; ASTM D1003
Gloss	90 %	90 %	60°; Properties have been measured by producing 30 µm film with 2.5 BUR using 100% 318BJ.; ASTM D2457