

SABIC[®] 318CNJ

318CNJ is a Linear Low Density Polyethylene TNPP free grade designed for wire and cable applications. It contains optimized level of antioxidants and does not contain any slip and antiblock additives. Sufficient antioxidant and Cu-inhibitor should be added to meet specific ageing requirements. For jacketing applications, addition of Carbon Black or UV stabilizer is required.

Physical Properties	Metric	English	Comments
Density	0.918 g/cc	0.0332 lb/in ³	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
Hardness, Shore D	51	51	Based on Injection molded specimens.; ASTM D2240
Tensile Strength at Break	18.0 MPa	2610 psi	ASTM D638
Tensile Strength, Yield	10.0 MPa	1450 psi	ASTM D638
Film Elongation at Yield, MD	17 %	17 %	ASTM D638
Elongation at Break	555 %	555 %	ASTM D638
1% Secant Modulus	174 MPa	25200 psi	ASTM D638

Electrical Properties	Metric	English	Comments
Volume Resistivity	6.80e+17 ohm-cm	6.80e+17 ohm-cm	at 500V; ASTM D257
Dielectric Constant	2.25 @Frequency 1000 Hz	2.25 @Frequency 1000 Hz	ASTM D150
Dielectric Strength	37.0 kV/mm	940 kV/in	ASTM D149
Dissipation Factor	0.00070 @Frequency 1000 Hz	0.00070 @Frequency 1000 Hz	ASTM D150

Thermal Properties	Metric	English	Comments
Melting Point	120 °C	248 °F	Peak Melting Temperature; SABIC method