

SABIC SABIC[®] 218BE

SABIC[®] LLDPE 218BE is a butene linear low density polyethylene resin with an additive package typically designed for a broader range of food applications (TNPP free). The good thermal stability allows to use the resin in critical extrusion processing conditions. Application SABIC[®] LLDPE 218BE is typically used for food applications (lamination film, barrier film) but can also be used in industrial packaging and as blending partner with other SABIC[®] PE resins in both blown and cast film applications. 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 ³	ASTM D1505

Melt Flow	2.1 g/10 min @Load 2.16 kg, Temperature 190 °C	2.1 g/10 min @Load 4.76 lb, Temperature 374 °F	ISO 1133
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Mechanical Properties	Metric	English	Comments
Hardness, Shore D	48	48	ISO 868

Tensile Strength at Break	17.0 MPa	2470 psi	ASTM D638
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Tensile Strength, Yield	12.0 MPa	1740 psi	ASTM D638
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Elongation at Break	790 %	790 %	ASTM D638
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Elongation at Yield	16 %	16 %	ASTM D638
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Flexural Modulus, 1% Secant	254 MPa	36800 psi	ASTM D790
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Puncture Energy	2.20 J	1.62 ft-lb	ASTM D5748-95
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Tear Strength	185 kN/m	1060 pli	TD; ISO 6383-2
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Peel Strength	0.0500 kN/m	0.285 pli	200% pre-stretch; ASTM D5458-95
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	0.0600 kN/m	0.342 pli	0% pre-stretch; ASTM D5458-95
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Dart Drop Total Energy	28.0 J/cm	0.0525 ft-lb/mil	ISO 7765-2
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Electrical Properties	Metric	English	Comments
Volume Resistivity	5.00e+15 ohm-cm	5.00e+15 ohm-cm	ASTM D257

Dielectric Constant	2.17 @Frequency 60 Hz	2.17 @Frequency 60 Hz	ASTM D150
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Dielectric Strength	55.0 kV/mm	1400 kV/in	500 V/sec; ASTM D149
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Thermal Properties	Metric	English	Comments
Melting Point	122 °C	252 °F	SABIC method
	122 °C	252 °F	SABIC method
Vicat Softening Point	96.0 °C	205 °F	at 10 N (VST/A); ISO 306

Optical Properties	Metric	English	Comments
Haze	1.2 %	1.2 %	ASTM D1003
Gloss	92 %	92 %	45°; ASTM D2457

Descriptive Properties			
Elastic recovery	52.6 %		ASTM D5459-95
Retention force at 60 sec	0.97 kg		
Stress retention	79.9 %		ASTM D5459-95
Ultimate pre-stretch level	310 %		