

Linear Low Density Polyethylene

LF20184

EVALENE[®] LF20184 is a medium slip, medium antiblock Linear Low Density Polyethylene grade with butene (C4) as comonomer for blown film applications.



EVALENE[®] LF20184 is specifically formulated for best performance in thicker films (≥ 50 microns; $\geq 0.002''$). **EVALENE[®] LF20184** is suitable for both the lamination and core layers in coextruded films. Films made of **EVALENE[®] LF20184** are notable for their toughness, flexibility and clarity - a good balance between mechanical and optical properties. The films exhibit good moisture and fair gas barrier properties, and are water resistant.

FEATURES

- Enhanced clarity
- Balanced mechanical properties
- Meets FDA Philippines food-contact requirements
- Halal certified

TYPICAL APPLICATIONS

- Flexible packaging
- Agricultural films
- Industrial liners
- Garment bags
- Trash bags
- Shopping bags
- Ice bags

Product Properties

Property	Test Condition	Test Method	Typical Value	Unit
Melt Index	190°C/2.16 kg	ASTM D1238	2.0	g/10 min
Density	23°C	ASTM D1505	0.918	g/cm ³
Tensile Strength at Yield*	500 mm/min	ASTM D882	9 / 9	MPa
Elongation at Yield*	500 mm/min	ASTM D882	51 / 21	%
Tensile Strength at Break*	500 mm/min	ASTM D882	14 / 13	MPa
Elongation at Break*	500 mm/min	ASTM D882	568 / 562	%
Tensile Modulus*	1% Secant, 25 mm/min	ASTM D882	181 / 192	MPa
Elmendorf Tear Strength*		ASTM D1922	174 / 625	g
Dart Drop Impact Strength*		ASTM D1709	61	g
% Haze*		ASTM D1003	16	%
Gloss*	45° angle of incidence	ASTM D2457	70	%
Coefficient of Friction - Static*		ASTM D1894	0.11	-
Coefficient of Friction - Kinetic*		ASTM D1894	0.09	-

*Properties tested on 25µ films made using a Killion extruder with 38mm screw, 3.5" die, 1.0mm die gap, at 2.25:1 BUR. Tensile and tear properties are in machine and transverse directions (MD / TD).

Typical Processing Conditions

Extrusion Temperatures	170 - 190°C
Blow Up Ratio	2 - 4
Die Gap	1 - 3 mm

EVALENE[®] LF20184 provides performance comparable to the other 2 MI, 918 Density LLDPE grade. Its mechanical properties are at par with those of the other grade's in this side-by-side evaluation. When using or switching to **EVALENE[®] LF20184** a converter is guaranteed ease of use and can expect similar performance.

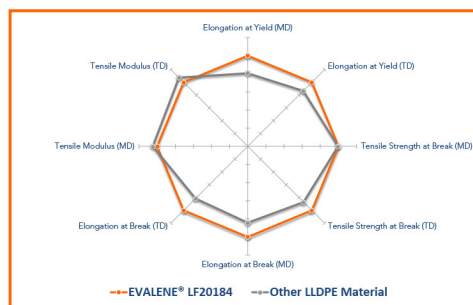


Figure 1. Mechanical property performance of **EVALENE[®] LF20184** vs. other 2 MI, 918 Density LLDPE material

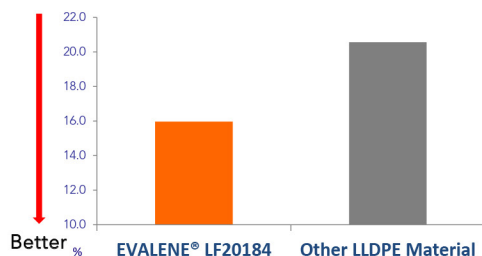


Figure 2. Comparison of haze between **EVALENE[®] LF20184** and other 2 MI, 918 Density LLDPE material

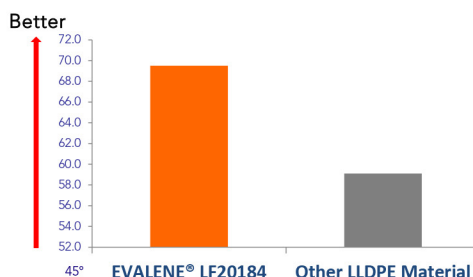


Figure 3. Comparison of gloss between **EVALENE[®] LF20184** and other 2 MI, 918 Density LLDPE material

EVALENE[®] LF20184 showcases outstanding optical properties. Its superior haze (22% lower) and gloss (18% higher) versus the other LLDPE material provide a film made of **EVALENE[®] LF20184** with outstanding display value.

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