

# Linear Low Density Polyethylene

## LF20185



EVALENE<sup>®</sup> LF20185 is a barefoot Linear Low Density Polyethylene grade with butene (C4) as comonomer for cast and blown film applications.

**EVALENE<sup>®</sup> LF20185** is formulated for cast and blown film applications where stretchability and flexibility are required, especially in high performance industrial applications. **EVALENE<sup>®</sup> LF20185** cast films are ideal for stretch wrap applications. **EVALENE<sup>®</sup> LF20185** blown films are also suitable for the lamination and core layers of coextruded films for flexible packaging.

### FEATURES

- Outstanding mechanical properties
- Good stretchability
- Meets FDA Philippines food-contact requirements
- Halal certified

### TYPICAL APPLICATIONS

- Stretch films
- Flexible packaging

# 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 <sup>3</sup>
Tensile Strength at Yield*	500 mm/min	ASTM D882	10 / 10	MPa
Elongation at Yield*	500 mm/min	ASTM D882	49 / 17	%
Tensile Strength at Break*	500 mm/min	ASTM D882	15 / 14	MPa
Elongation at Break*	500 mm/min	ASTM D882	499 / 524	%
Tensile Modulus*	1% Secant, 25 mm/min	ASTM D882	185 / 202	MPa
Elmendorf Tear Strength*		ASTM D1922	212 / 355	g
Dart Drop Impact Strength*		ASTM D1709	65	g
% Haze*		ASTM D1003	19	%
Gloss*	45° angle of incidence	ASTM D2457	64	%

\*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 (Blown Film)	1 - 3 mm

**EVALENE® LF20185** exhibits properties that are comparable with the other 2 MI, 918 Density LLDPE grade. It is a drop-in substitute, making the switch to **EVALENE® LF20185** such an ease in terms of meeting processability and product performance. As core and lamination layer in a coextruded film or stretch film material, **EVALENE® LF20185** meets converters' and end-users' expectations.

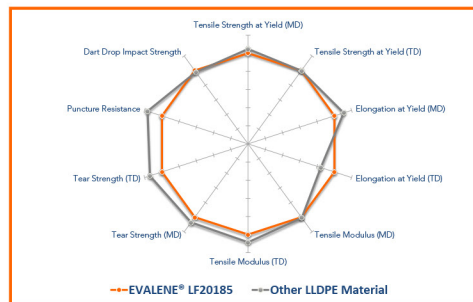


Figure 1. Mechanical property performance of **EVALENE® LF20185** vs. other 2 MI, 918 Density LLDPE material

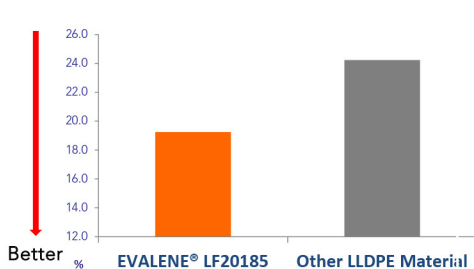


Figure 2. Comparison of haze between **EVALENE® LF20185** and other 2 MI, 918 Density LLDPE material

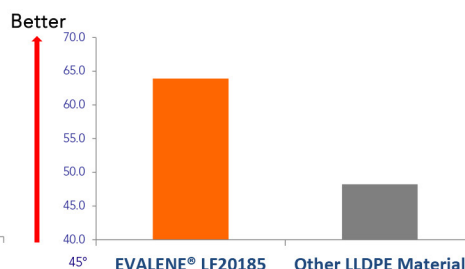


Figure 3. Comparison of gloss between **EVALENE® LF20185** and other 2 MI, 918 Density LLDPE material

**EVALENE® LF20185** has superior optical properties compared to the other 2 MI, 918 Density LLDPE grade. With 20% lower haze and 33% higher gloss, stretch film made of **EVALENE® LF20185** is clearer and shinier, benefitting end-users who are keen on promoting their brands.

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