



Formosa Industries

Formolene® LB1810E3

Linear Low Density Polyethylene (LLDPE) Resin for Film Extrusion Applications

Formolene® LB1810E3 is a butene based linear low density polyethylene copolymer designed for blown film applications.

Formolene® LB1810E3 meets all requirements of the U.S. Food and Drug Administration as specified in 21 CFR 177.1520, covering safe use of polyolefin articles intended for direct food contact.

Suggested Applications:

Agricultural Films

Industrial Liners

Industrial Packaging

Garment Bags

Additives:

Antiblock – Yes

Slip – Yes

Processing Aid – No

Nominal Values

PROPERTY	ASTM TEST METHOD	ENGLISH		SI	
		Unit	Value	Unit	Value
Base Density	Internal Method	g/cm ³	0.918	g/cm ³	0.918
Melt Index (190 °C, 2.16 kg)	D1238	g/10 min	1.0	g/10 min	1.0
Tensile Strength at Yield	D882	psi	1550/1600*	MPa	10.7/11.0*
Tensile Strength at Break	D882	psi	5300/3900*	MPa	36.5/26.9*
Tensile Elongation at Break	D882	%	580/690*	%	580/690*
Dart Impact	D1709A	g	90	g	90
Elmendorf Tear Strength	D1922	g	170/320*	g	170/320*

* MD/TD

Available in the following additive packages:

Additive	LB1810B	LB1810A	LB1810E2	LB1810H	LB1810D	LB1810E3
Density (g/cm ³) ASTM D792	0.918	0.921	0.922	0.918	0.919	0.919
Antiblock (ppm)	None	4000	5000	None	1700	1700
Slip (ppm)	None	None	1500	None	1350	1350
Processing aid	None	None	None	None	Yes	No
Special	-	Additives talc based	Additives talc based	High Antioxidant	Additives synthetic based	Additives synthetic based

Note: Film properties are based on 1.0 mil (25 µm) thickness blown film produced with a 2.5:1 blow-up ratio at 12 lb/hr/in. die. Actual film properties may vary depending on operating conditions and additive packages. Film properties are not intended to be used as specifications.

Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

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