


**Formosa Industries**
**Formolene® LLDPE**

## Formolene® LB1810E2

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

Formolene® LB1810E2 is a butene based linear low density polyethylene copolymer designed for blown film applications.

Formolene® LB1810E2 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 – 5000 ppm      Slip – 1500 ppm      Processing Aid – No

#### Nominal Values

| PROPERTY                     | ASTM TEST METHOD | ENGLISH           |            | SI                |            |
|------------------------------|------------------|-------------------|------------|-------------------|------------|
|                              |                  | Unit              | Value      | Unit              | Value      |
| Base Density                 | Internal Method  | g/cm <sup>3</sup> | 0.918      | g/cm <sup>3</sup> | 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             |
|-------------------------------------------|------------------|----------------------|----------------------|
| Density (g/cm <sup>3</sup> )<br>ASTM D792 | 0.918            | 0.920                | 0.922                |
| Antiblock (ppm)                           | None             | 4000                 | 5000                 |
| Slip (ppm)                                | None             | None                 | 1500                 |
| Processing aid                            | None             | None                 | None                 |
| Special                                   | High Antioxidant | Additives talc based | Additives talc 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/cm<sup>3</sup>. Base density is the estimated density of the polymer if it did not contain any antiblock.

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