

# ExxonMobil™ LDPE LD 165BW1

## Low Density Polyethylene Resin

### Product Description

The LD 165 series are LDPE grades, offering high strength combined with medium optical properties.

### General

|              |                                                               |                                                                     |                                             |
|--------------|---------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------|
| Additive     | ▪ Antiblock: No                                               | ▪ Slip: No                                                          | ▪ Thermal Stabilizer: Yes                   |
| Applications | ▪ Agricultural Film<br>▪ Blend Partner<br>▪ Construction Film | ▪ Foams<br>▪ Heavy Duty Bags<br>▪ High Performance Collation Shrink | ▪ Pallet Shrink Film<br>▪ Profile Extrusion |

| Resin Properties         | Typical Value (English) | Typical Value (SI)      | Test Based On     |
|--------------------------|-------------------------|-------------------------|-------------------|
| Density                  | 0.922 g/cm <sup>3</sup> | 0.922 g/cm <sup>3</sup> | ExxonMobil Method |
| Melt Index <sup>2</sup>  | 0.33 g/10 min           | 0.33 g/10 min           | ExxonMobil Method |
| Peak Melting Temperature | 228 °F                  | 109 °C                  | ExxonMobil Method |

| Film Properties               | Typical Value (English) | Typical Value (SI) | Test Based On |
|-------------------------------|-------------------------|--------------------|---------------|
| Tensile Strength at Yield MD  | 1700 psi                | 12 MPa             | ASTM D882     |
| Tensile Strength at Yield TD  | 1600 psi                | 11 MPa             | ASTM D882     |
| Tensile Strength at Break MD  | 3500 psi                | 24 MPa             | ASTM D882     |
| Tensile Strength at Break TD  | 3200 psi                | 22 MPa             | ASTM D882     |
| Elongation at Break MD        | 500 %                   | 500 %              | ASTM D882     |
| Elongation at Break TD        | 650 %                   | 650 %              | ASTM D882     |
| Secant Modulus MD - 1% Secant | 30000 psi               | 210 MPa            | ASTM D882     |
| Secant Modulus TD - 1% Secant | 35000 psi               | 240 MPa            | ASTM D882     |
| Dart Drop Impact              | 320 g                   | 320 g              | ASTM D1709A   |
| Elmendorf Tear Strength MD    | 400 g                   | 400 g              | ASTM D1922    |
| Elmendorf Tear Strength TD    | 750 g                   | 750 g              | ASTM D1922    |

| Optical Properties | Typical Value (English) | Typical Value (SI) | Test Based On |
|--------------------|-------------------------|--------------------|---------------|
| Gloss (45°)        | 54                      | 54                 | ASTM D2457    |
| Haze               | 11 %                    | 11 %               | ASTM D1003    |

