

# ExxonMobil™ LLDPE LL 3001.32 Cast

## Linear Low Density Polyethylene Resin

### Product Description

ExxonMobil™ LL 3001.32 is an ethylene 1-hexene copolymer linear low density polyethylene resin designed for the blown or cast film process. Films made from LL 3001.32 resin have outstanding tensile and toughness properties. These superior properties, along with excellent drawability, make LL 3001.32 a versatile packaging film resin.

### General

|              |                                                                                         |                                                                                                       |
|--------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Additive     | <ul style="list-style-type: none"> <li>Antiblock: No</li> <li>Slip: No</li> </ul>       | <ul style="list-style-type: none"> <li>Processing Aid: No</li> <li>Thermal Stabilizer: Yes</li> </ul> |
| Applications | <ul style="list-style-type: none"> <li>Freezer Film</li> <li>Heavy Duty Bags</li> </ul> | <ul style="list-style-type: none"> <li>Ice Bags</li> <li>Trash Bags</li> </ul>                        |
| Form(s)      | <ul style="list-style-type: none"> <li>Pellets</li> </ul>                               |                                                                                                       |

| Resin Properties           | Typical Value (English) | Typical Value (SI)      | Test Based On     |
|----------------------------|-------------------------|-------------------------|-------------------|
| Density                    | 0.917 g/cm <sup>3</sup> | 0.917 g/cm <sup>3</sup> | ASTM D1505        |
| Melt Index (190°C/2.16 kg) | 1.0 g/10 min            | 1.0 g/10 min            | ASTM D1238        |
| Peak Melting Temperature   | 253 °F                  | 123 °C                  | ExxonMobil Method |

| Thermal                     | Typical Value (English) | Typical Value (SI) | Test Based On |
|-----------------------------|-------------------------|--------------------|---------------|
| Vicat Softening Temperature | 208 °F                  | 98 °C              | ASTM D1525    |

| Film Properties               | Typical Value (English) | Typical Value (SI) | Test Based On     |
|-------------------------------|-------------------------|--------------------|-------------------|
| Tensile Strength at Yield MD  | 1200 psi                | 8.5 MPa            | ASTM D882         |
| Tensile Strength at Yield TD  | 1200 psi                | 8.0 MPa            | ASTM D882         |
| Tensile Strength at Break MD  | 9200 psi                | 60 MPa             | ASTM D882         |
| Tensile Strength at Break TD  | 5900 psi                | 41 MPa             | ASTM D882         |
| Elongation at Break MD        | 380 %                   | 380 %              | ASTM D882         |
| Elongation at Break TD        | 800 %                   | 800 %              | ASTM D882         |
| Secant Modulus MD - 1% Secant | 20000 psi               | 130 MPa            | ASTM D882         |
| Secant Modulus TD - 1% Secant | 22000 psi               | 150 MPa            | ASTM D882         |
| Dart Drop Impact              | 110 g                   | 110 g              | ASTM D1709A       |
| Elmendorf Tear Strength MD    | 300 g                   | 300 g              | ASTM D1922        |
| Elmendorf Tear Strength TD    | 690 g                   | 690 g              | ASTM D1922        |
| Puncture Force                | 9 lbf                   | 40 N               | ExxonMobil Method |
| Puncture Energy               | 30 in·lb                | 3.4 J              | ExxonMobil Method |

| Optical Properties | Typical Value (English) | Typical Value (SI) | Test Based On |
|--------------------|-------------------------|--------------------|---------------|
| Gloss (45°)        | 88                      | 88                 | ASTM D2457    |
| Haze               | 2.2 %                   | 2.2 %              | ASTM D1003    |

### Legal Statement

Contact your ExxonMobil Chemical Customer Service Representative for potential food contact application compliance (e.g. FDA, EU, HPFB).

This product is not intended for use in medical applications and should not be used in any such applications.

### Processing Statement

Film (0.8 mil / 20 micron) made from LL 3001.32 resin on a 3.5 inch cast film line with a 8.25 inch melt curtain, 80°F (27°C) chill roll temperature at a 160 ft/min (49 m/min) take-off speed and a melt temperature of 560°F (293°C).