

# ExxonMobil™ LLDPE LL 1002AY Blown

## Linear Low Density Polyethylene Resin

### Product Description

LL 1002AY is a butene LLDPE designed for the blown film process, offering high gloss and excellent draw down. Films made from LL1002AY have very good tensile and toughness properties. TnPP is not intentionally added to LL 1002AY.

### General

|                           |   |
|---------------------------|---|
| Availability <sup>1</sup> | <ul style="list-style-type: none"> <li>Asia Pacific</li> <li>Europe</li> <li>Latin America</li> </ul>   |
| Additive                  | <ul style="list-style-type: none"> <li>LL 1002AY: Antiblock: No; Slip: No; Processing Aid: No; Thermal Stabilizer: Yes</li> </ul>   |
| Applications              | <ul style="list-style-type: none"> <li>Agricultural Film</li> <li>Bag in Box</li> <li>Blown Film</li> <li>Cast Film</li> <li>Food Packaging</li> <li>Form Fill And Seal Packaging</li> <li>Freezer Film</li> <li>Garment Film</li> <li>General Packaging</li> <li>Industrial Packaging</li> <li>Institutional Can Liners</li> <li>Lamination Film</li> <li>Liners</li> <li>Mulch Film</li> <li>Multilayer Packaging Film</li> <li>Packaging Films</li> <li>Personal Care</li> <li>Produce Bags On A Roll</li> <li>Shoppers</li> <li>Trash Can Liners</li> </ul> |
| Revision Date             | <ul style="list-style-type: none"> <li>01/01/2019</li> </ul>  |

| Resin Properties           | Typical Value (English) | Typical Value (SI)      | Test Based On     |
|----------------------------|-------------------------|-------------------------|-------------------|
| Density                    | 0.918 g/cm <sup>3</sup> | 0.918 g/cm <sup>3</sup> | ASTM D1505        |
| Melt Index (190°C/2.16 kg) | 2.0 g/10 min            | 2.0 g/10 min            | ASTM D1238        |
| Peak Melting Temperature   | 250 °F                  | 121 °C                  | ExxonMobil Method |

| Film Properties               | Typical Value (English) | Typical Value (SI) | Test Based On |
|-------------------------------|-------------------------|--------------------|---------------|
| Tensile Strength at Yield MD  | 1400 psi                | 9.4 MPa            | ASTM D882     |
| Tensile Strength at Yield TD  | 1300 psi                | 8.9 MPa            | ASTM D882     |
| Tensile Strength at Break MD  | 7100 psi                | 49 MPa             | ASTM D882     |
| Tensile Strength at Break TD  | 4200 psi                | 29 MPa             | ASTM D882     |
| Elongation at Break MD        | 590 %                   | 590 %              | ASTM D882     |
| Elongation at Break TD        | 800 %                   | 800 %              | ASTM D882     |
| Secant Modulus TD - 1% Secant | 32000 psi               | 220 MPa            | ASTM D882     |
| Dart Drop Impact              | 70 g                    | 70 g               | ASTM D1709A   |
| Elmendorf Tear Strength MD    | 90 g                    | 90 g               | ASTM D1922    |
| Elmendorf Tear Strength TD    | 400 g                   | 400 g              | ASTM D1922    |

| Optical Properties | Typical Value (English) | Typical Value (SI) | Test Based On |
|--------------------|-------------------------|--------------------|---------------|
| Gloss (45°)        | 76                      | 76                 | ASTM D2457    |
| Haze               | 4.4 %                   | 4.4 %              | ASTM D1003    |

### Legal Statement

Tris(nonylphenol)phosphite (TNPP) CAS# 26523-78-4 is not intentionally used by ExxonMobil in this product. Although this product is not routinely tested for its presence, based on product composition knowledge this substance is not expected to be present. However, the fact that this substance is not intentionally used by ExxonMobil in this product does not exclude that trace levels of this substance may be present as a result of the specific characteristics of the raw materials and/or of the manufacturing process.

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

### Processing Statement

The test specimen was prepared and tested at our European Technology Center using a 25.4 µm (1.0 mil) thick film (screw diameter = 75 mm, die gap = 2.5 mm, BUR = 2.5 and temperature setting of 200°C). Optical film properties have been measured on a 25.4 µm thick film with addition of 10% LDPE at the same conditions.

### Notes

Typical properties: these are not to be construed as specifications.

<sup>1</sup> Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.

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Linear Low Density Polyethylene Resin

For additional technical, sales and order assistance: [www.exxonmobilchemical.com/ContactUs](http://www.exxonmobilchemical.com/ContactUs)

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