

# ExxonMobil™ LLDPE LL 3003 Series

## Linear Low Density Polyethylene Resin

### Product Description

ExxonMobil™ LL 3003 Series are ethylene 1-hexene copolymer linear low density polyethylene cast film resins. Films made from LL 3003 resins have outstanding tensile properties, as well as stiffness and toughness. These superior properties, along with excellent drawability, make LL 3003 versatile packaging film resins.

### General

|                           |  |
|---------------------------|--|
| Availability <sup>1</sup> | <ul style="list-style-type: none"> <li>Latin America</li> <li>North America</li> </ul>   |
| Additive                  | <ul style="list-style-type: none"> <li>LL 3003.39: Antiblock: No; Slip: No; Processing Aid: No; Thermal Stabilizer: Yes</li> <li>LL 3003.32: Antiblock: No; Slip: No; Processing Aid: No; Thermal Stabilizer: Yes</li> </ul> |
| Applications              | <ul style="list-style-type: none"> <li>Cast Film</li> <li>Cast Stretch Film</li> <li>Packaging Films</li> </ul>  |
| Form(s)                   | <ul style="list-style-type: none"> <li>Pellets</li> </ul>  |
| Revision Date             | <ul style="list-style-type: none"> <li>06/11/2020</li> </ul>   |

### Resin Properties

|                            | Typical Value (English) | Typical Value (SI)      | Test Based On     |
|----------------------------|-------------------------|-------------------------|-------------------|
| Density / Specific Gravity | 0.918 g/cm <sup>3</sup> | 0.918 g/cm <sup>3</sup> | ASTM D792         |
| Melt Index (190°C/2.16 kg) | 3.2 g/10 min            | 3.2 g/10 min            | ASTM D1238        |
| Peak Melting Temperature   | 255 °F                  | 124 °C                  | ExxonMobil Method |

### Thermal

|                             | Typical Value (English) | Typical Value (SI) | Test Based On     |
|-----------------------------|-------------------------|--------------------|-------------------|
| Vicat Softening Temperature | 199 °F                  | 93.0 °C            | ExxonMobil Method |

### Film Properties

|                               | Typical Value (English) | Typical Value (SI) | Test Based On     |
|-------------------------------|-------------------------|--------------------|-------------------|
| Tensile Strength at Yield MD  | 1300 psi                | 8.7 MPa            | ASTM D882         |
| Tensile Strength at Yield TD  | 1200 psi                | 8.2 MPa            | ASTM D882         |
| Tensile Strength at Break MD  | 6900 psi                | 47 MPa             | ASTM D882         |
| Tensile Strength at Break TD  | 4700 psi                | 33 MPa             | ASTM D882         |
| Elongation at Break MD        | 510 %                   | 510 %              | ASTM D882         |
| Elongation at Break TD        | 820 %                   | 820 %              | ASTM D882         |
| Secant Modulus MD - 1% Secant | 19000 psi               | 130 MPa            | ASTM D882         |
| Secant Modulus TD - 1% Secant | 21000 psi               | 150 MPa            | ASTM D882         |
| Dart Drop Impact              | 100 g                   | 100 g              | ASTM D1709A       |
| Elmendorf Tear Strength MD    | 170 g                   | 170 g              | ASTM D1922        |
| Elmendorf Tear Strength TD    | 580 g                   | 580 g              | ASTM D1922        |
| Puncture Force                | 7 lbf                   | 32 N               | ExxonMobil Method |
| Puncture Energy               | 23 in·lb                | 2.6 J              | ExxonMobil Method |

### Optical Properties

|             | Typical Value (English) | Typical Value (SI) | Test Based On |
|-------------|-------------------------|--------------------|---------------|
| Gloss (45°) | 91                      | 91                 | ASTM D2457    |
| Haze        | 2.0 %                   | 2.0 %              | 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 3003.32 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 400 ft/min (122 m/min) take-off speed and a melt temperature of 530°F (277°C).

ExxonMobil™ LLDPE LL 3003 Series  
Linear Low Density Polyethylene Resin

#### 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.

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

©2022 ExxonMobil. ExxonMobil, the ExxonMobil logo, the interlocking "X" device and other product or service names used herein are trademarks of ExxonMobil, unless indicated otherwise. This document may not be distributed, displayed, copied or altered without ExxonMobil's prior written authorization. To the extent ExxonMobil authorizes distributing, displaying and/or copying of this document, the user may do so only if the document is unaltered and complete, including all of its headers, footers, disclaimers and other information. You may not copy this document to or reproduce it in whole or in part on a website. ExxonMobil does not guarantee the typical (or other) values. Any data included herein is based upon analysis of representative samples and not the actual product shipped. The information in this document relates only to the named product or materials when not in combination with any other product or materials. We based the information on data believed to be reliable on the date compiled, but we do not represent, warrant, or otherwise guarantee, expressly or impliedly, the merchantability, fitness for a particular purpose, freedom from patent infringement, suitability, accuracy, reliability, or completeness of this information or the products, materials or processes described. The user is solely responsible for all determinations regarding any use of material or product and any process in its territories of interest. We expressly disclaim liability for any loss, damage or injury directly or indirectly suffered or incurred as a result of or related to anyone using or relying on any of the information in this document. This document is not an endorsement of any non-ExxonMobil product or process, and we expressly disclaim any contrary implication. The terms "we," "our," "ExxonMobil Product Solutions" and "ExxonMobil" are each used for convenience, and may include any one or more of ExxonMobil Product Solutions Company, Exxon Mobil Corporation, or any affiliate either directly or indirectly stewarded.

[exxonmobilchemical.com](http://exxonmobilchemical.com)