

# Exceed™ 1012 mVLDPE Formulated Metallocene Polyethylene Resin

## Product Description

Exceed 1012 mVLDPE resins are metallocene ethylene-hexene copolymers. Films made from Exceed 1012 mVLDPE resin have outstanding cold temperature toughness, impact strength and puncture. These superior strength properties, along with excellent heat sealing and hot tack performance, make this a very versatile packaging film resin.

## General

|                           |  |   |  |
|---------------------------|--|---|--|
| Availability <sup>1</sup> | • Latin America  | • North America   | • South America  |
| Additive                  | • Exceed 1012MJ: Antiblock: 4500 ppm; Slip: No; Processing Aid: Yes; Thermal Stabilizer: Yes<br>• Exceed 1012MK: Antiblock: 5000 ppm; Slip: 1000 ppm; Processing Aid: Yes; Thermal Stabilizer: Yes |   |  |
| Applications              | • Bag in Box<br>• Barrier Food Packaging<br>• Blown Film<br>• Food packaging   | • Form Fill And Seal Packaging<br>• Freezer Film<br>• Heavy Duty Bags<br>• Ice Bags | • Lamination Film<br>• Multilayer Packaging Film<br>• Stand Up Pouches |
| Revision Date             | • December 2012  |   |  |

| Resin Properties           | Typical Value (English) | Typical Value (SI)      | Test Based On     |
|----------------------------|-------------------------|-------------------------|-------------------|
| Density                    | 0.912 g/cm <sup>3</sup> | 0.912 g/cm <sup>3</sup> | ExxonMobil Method |
| Melt Index (190°C/2.16 kg) | 1.0 g/10 min            | 1.0 g/10 min            | ASTM D1238        |
| Peak Melting Temperature   | 242 °F                  | 117 °C                  | ExxonMobil Method |

| Film Properties               | Typical Value (English) | Typical Value (SI) | Test Based On     |
|-------------------------------|-------------------------|--------------------|-------------------|
| Tensile Strength at Yield MD  | 1000 psi                | 7.0 MPa            | ASTM D882         |
| Tensile Strength at Yield TD  | 1100 psi                | 7.4 MPa            | ASTM D882         |
| Tensile Strength at Break MD  | 7900 psi                | 50 MPa             | ASTM D882         |
| Tensile Strength at Break TD  | 7000 psi                | 48 MPa             | ASTM D882         |
| Elongation at Break MD        | 460 %                   | 460 %              | ASTM D882         |
| Elongation at Break TD        | 580 %                   | 580 %              | ASTM D882         |
| Secant Modulus MD - 1% Secant | 17000 psi               | 120 MPa            | ASTM D882         |
| Secant Modulus TD - 1% Secant | 19000 psi               | 130 MPa            | ASTM D882         |
| Dart Drop Impact              | 500 g                   | 500 g              | ASTM D1709        |
| Elmendorf Tear Strength MD    | 210 g                   | 210 g              | ASTM D1922        |
| Elmendorf Tear Strength TD    | 330 g                   | 330 g              | ASTM D1922        |
| Puncture Force                | 10 lbf                  | 43 N               | ExxonMobil Method |
| Puncture Energy               | 26 in·lb                | 2.9 J              | ExxonMobil Method |

| Optical Properties | Typical Value (English) | Typical Value (SI) | Test Based On |
|--------------------|-------------------------|--------------------|---------------|
| Gloss (45°)        | 45                      | 45                 | ASTM D2457    |
| Haze               | 15 %                    | 15 %               | ASTM D1003    |

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

©2012 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 Chemical" and "ExxonMobil" are each used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliate either directly or indirectly stewarded.

# ExxonMobil Chemical Exceed™ 1012 mVLDPE Formulated Metallocene Polyethylene Resin

---

## 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 (1 mil/25.4 micron) made from Exceed 1012MJ on a 2.5 inch (63.5 mm) blown film line with a 2.5:1 blow-up ratio, a melt temperature of 404°F (207°C), a 60 mil (1.52 mm) die gap at a rate of 10 lbs/hr/in die circumference (1.79 kg/hr/cm).

---

## Notes

<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:

### Worldwide and the Americas

ExxonMobil Chemical Company  
13501 Katy Freeway  
Houston, TX 77079-1398  
USA  
1-281-870-6050

### Asia Pacific

ExxonMobil Chemical Asia Pacific  
1 HarbourFront Place  
#06-00 HarbourFront Tower One  
Singapore 098633  
+86-21-24173999

### Europe, Middle East and Africa

ExxonMobil Chemical Europe  
Hermeslaan 2  
1831 Machelen, Belgium  
420-239-016-274

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

©2012 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 Chemical" and "ExxonMobil" are each used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliate either directly or indirectly stewarded.