

# Enable™ 2005 Series

## Performance Polymer

### Product Description

Enable™ 2005 resins are ethylene 1-hexene copolymers. Enable™ performance polymer resins offer an outstanding balance between processing and film properties, including tensile, impact and puncture. Easier processing and excellent properties lead to significant high pressure LDPE replacement in many applications, yet with superior drawdown and enhanced toughness. TnPP is not intentionally added to Enable™ 2005 resins.

### General

Availability <sup>1</sup>	<ul style="list-style-type: none"> <li>▪ Africa &amp; Middle East</li> <li>▪ Asia Pacific</li> </ul>	<ul style="list-style-type: none"> <li>▪ Europe</li> <li>▪ Latin America</li> </ul>	<ul style="list-style-type: none"> <li>▪ North America</li> </ul>
Additive	<ul style="list-style-type: none"> <li>▪ Enable™ 2005MC: Antiblock: No; Slip: No; Processing Aid: Yes; Thermal Stabilizer: Yes</li> <li>▪ Enable™ 2005PA: Antiblock: No; Slip: No; Processing Aid: No; Thermal Stabilizer: Yes</li> <li>▪ Enable™ 2005ME: Antiblock: 2000 ppm; Slip: 500 ppm; Processing Aid: Yes; Thermal Stabilizer: Yes</li> </ul>		
Applications	<ul style="list-style-type: none"> <li>▪ Agricultural Film</li> <li>▪ Blown Film</li> <li>▪ Cast Film</li> <li>▪ Cast Stretch Film</li> <li>▪ Collation Shrink</li> </ul>	<ul style="list-style-type: none"> <li>▪ Food Packaging</li> <li>▪ Form Fill And Seal Packaging</li> <li>▪ Heavy Duty Bags</li> <li>▪ Lamination Film</li> <li>▪ Multilayer Packaging Film</li> </ul>	<ul style="list-style-type: none"> <li>▪ Shrink Film</li> <li>▪ Stand Up Pouches</li> <li>▪ Stretch Film</li> </ul>
Revision Date	<ul style="list-style-type: none"> <li>▪ 06/03/2020</li> </ul>		

Resin Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Density / Specific Gravity	0.920 g/cm <sup>3</sup>	0.920 g/cm <sup>3</sup>	ASTM D792
Melt Index (190°C/2.16 kg)	0.50 g/10 min	0.50 g/10 min	ASTM D1238
Peak Melting Temperature	239 °F	115 °C	ExxonMobil Method

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Vicat Softening Temperature	225 °F	107 °C	ExxonMobil Method

Film Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Strength at Yield MD	1400 psi	9.9 MPa	ASTM D882
Tensile Strength at Yield TD	1600 psi	11 MPa	ASTM D882
Tensile Strength at Break MD	8800 psi	60 MPa	ASTM D882
Tensile Strength at Break TD	8000 psi	60 MPa	ASTM D882
Elongation at Break MD	480 %	480 %	ASTM D882
Elongation at Break TD	710 %	710 %	ASTM D882
Secant Modulus MD - 1% Secant	30000 psi	210 MPa	ASTM D882
Secant Modulus TD - 1% Secant	34000 psi	240 MPa	ASTM D882
Dart Drop Impact	240 g	240 g	ASTM D1709A
Elmendorf Tear Strength MD	90 g	90 g	ASTM D1922
Elmendorf Tear Strength TD	570 g	570 g	ASTM D1922
Puncture Force	12 lbf	54 N	ExxonMobil Method
Puncture Energy	33 in-lb	3.8 J	ExxonMobil Method

Optical Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Gloss (45°)	57	57	ASTM D2457
Haze	7.8 %	7.8 %	ASTM D1003

## Enable™ 2005 Series Performance Polymer

### 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.

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.

### Processing Statement

Film (1 mil / 25.4 micron) made on a 2.5 inch (63.5 mm) blown film line with a 2.5:1 blow-up ratio, a melt temperature of 380- 400°F (193 - 204°C), a 30 mil (0.76 mm) die gap at a rate of 10 lbs/hr/in die circumference (1.79 kg/hr/cm).

### 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)

©2023 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)