

# Enable™ 20-05 Series Metallocene Polyethylene Resin



## Product Description

Enable 20-05 resins are metallocene ethylene-hexene copolymers. Enable mPE 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. Enable 20-05 resins are available with blown film formulations, with or without antiblock. A heavily stabilized formulation for cast film processing is also available.

## General

Availability 1	• Latin America	• North America	• South America
Additive	• Enable 20-05CB: Antiblock: No; Processing Aid: No; Slip: No; Thermal Stabilizer: Yes • Enable 20-05CH: Antiblock: No; Processing Aid: Yes; Slip: No; Thermal Stabilizer: Yes • Enable 20-05CE: Antiblock: 2000 ppm; Processing Aid: Yes; Slip: 500 ppm; Thermal Stabilizer: Yes		
Applications	• Agricultural Film • Blown Film • Cast Film • Cast Stretch Film • Collation Shrink	• Food packaging • Form Fill And Seal Packaging • Heavy Duty Bags • Lamination Film • Multilayer Packaging Film	• Shrink Film • Stand Up Pouches • Stretch Film
Revision Date	• 2/2009		

Resin Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Density	0.920 g/cm <sup>3</sup>	0.920 g/cm <sup>3</sup>	ExxonMobil Method
Melt Index (190°C/2.16 kg)	0.50 g/10 min	0.50 g/10 min	ASTM D1238
Peak Melting Temperature	237 °F	114 °C	ExxonMobil Method

Film Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Strength at Yield MD	1450 psi	9.96 MPa	ASTM D882
Tensile Strength at Yield TD	1490 psi	10.3 MPa	ASTM D882
Tensile Strength at Break MD	9930 psi	68.5 MPa	ASTM D882
Tensile Strength at Break TD	7990 psi	55.1 MPa	ASTM D882
Elongation at Break MD	470 %	470 %	ASTM D882
Elongation at Break TD	720 %	720 %	ASTM D882
Secant Modulus MD - 1% Secant	28100 psi	193 MPa	ASTM D882
Secant Modulus TD - 1% Secant	31900 psi	220 MPa	ASTM D882
Dart Drop Impact	280 g	280 g	ASTM D1709A
Elmendorf Tear Strength MD	76 g	76 g	ASTM D1922
Elmendorf Tear Strength TD	550 g	550 g	ASTM D1922
Puncture Force	12.0 lbf	53.4 N	ExxonMobil Method
Puncture Energy	33.0 in-lb	3.73 J	ExxonMobil Method

Optical Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Gloss (45°)	60	60	ASTM D2457
Haze	8.1 %	8.1 %	ASTM D1003

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

© 2009 Exxon Mobil Corporation. To the extent the user is entitled to disclose and distribute this document, the user may forward, distribute, and/or photocopy this copyrighted document only if unaltered and complete, including all of its headers, footers, disclaimers, and other information. You may not copy this document to a Web site. ExxonMobil does not guarantee the typical (or other) values. Analysis may be performed on 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, 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. There is no endorsement of any product or process, and we expressly disclaim any contrary implication. The terms, "we", "our", "ExxonMobil Chemical", or "ExxonMobil" are used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliates they directly or indirectly steward. ExxonMobil, the ExxonMobil Chemical Emblem, the "Interlocking X" Device, Enable, Exceed, Exact, Exxco, Escorene, Escor, Iotek, NTX, Polybilt, Paxon and Optema are trademarks or service marks of Exxon Mobil Corporation.

## ExxonMobil Chemical Enable™ 20-05 Series Metallocene Polyethylene Resin

---

### Legal Statement

20-05 Series can - in principle - be used in food contact applications in various EU Member States and in the USA (FDA). Migration or use limitations may apply. Please contact your ExxonMobil Chemical representative for more detailed information and/or actual compliance certification documents for the specific grade of interest.

ExxonMobil Polyethylene is not intended for use in medical applications.

---

### Processing Statement

Film (1 mil / 25.4 micron) made from Enable 20-05CH on a blown film line equipped with a 2.5 inch screw, 30 mil ( 0.76 mm ) die gap, 2.5:1 blow up ratio, 383 °F ( 195°C ) melt temperature, 17 inch ( 432 mm ) frostline and 10 lbs/die in/hr.

---

### Notes

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

---

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

© 2009 Exxon Mobil Corporation. To the extent the user is entitled to disclose and distribute this document, the user may forward, distribute, and/or photocopy this copyrighted document only if unaltered and complete, including all of its headers, footers, disclaimers, and other information. You may not copy this document to a Web site. ExxonMobil does not guarantee the typical (or other) values. Analysis may be performed on 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, 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. There is no endorsement of any product or process, and we expressly disclaim any contrary implication. The terms, "we", "our", "ExxonMobil Chemical", or "ExxonMobil" are used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliates they directly or indirectly steward. ExxonMobil, the ExxonMobil Chemical Emblem, the "Interlocking X" Device, Enable, Exceed, Exact, Exxco, Escorene, Escor, lotek, NTX, Polybilt, Paxon and Optema are trademarks or service marks of Exxon Mobil Corporation.