

# Enable™ 4009RA

## Performance Polymer

### Product Description

Enable 4009RA is a medium density ethylene 1-hexene copolymer that offers an outstanding balance between extrusion processing and film properties, including modulus, tensile, impact and puncture. TnPP is not intentionally added to Enable 4009RA.

### 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>North America</li> </ul>
Additive	<ul style="list-style-type: none"> <li>Antiblock: No</li> <li>Slip: No</li> </ul>	<ul style="list-style-type: none"> <li>Thermal Stabilizer: Yes</li> <li>Alternative Processing Aid: Yes</li> </ul>
Applications	<ul style="list-style-type: none"> <li>Bread Bags</li> <li>Compression Packaging</li> </ul>	<ul style="list-style-type: none"> <li>Hygiene film</li> <li>Lami Tubes</li> <li>Lamination Film</li> <li>Monofilament</li> </ul>
Form(s)	<ul style="list-style-type: none"> <li>Pellets</li> </ul>	
Revision Date	<ul style="list-style-type: none"> <li>03/17/2023</li> </ul>	

### Resin Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Density / Specific Gravity	0.938 g/cm <sup>3</sup>	0.938 g/cm <sup>3</sup>	ASTM D792
Melt Index (190°C/2.16 kg)	0.90 g/10 min	0.90 g/10 min	ASTM D1238

### Film Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Strength at Yield MD	2600 psi	18 MPa	ASTM D882
Tensile Strength at Yield TD	3000 psi	21 MPa	ASTM D882
Tensile Strength at Break MD	8100 psi	60 MPa	ASTM D882
Tensile Strength at Break TD	6300 psi	43 MPa	ASTM D882
Elongation at Break MD	600 %	600 %	ASTM D882
Elongation at Break TD	830 %	830 %	ASTM D882
Secant Modulus MD - 1% Secant	74000 psi	510 MPa	ASTM D882
Secant Modulus TD - 1% Secant	86000 psi	590 MPa	ASTM D882
Dart Drop Impact	< 60 g	< 60 g	ASTM D1709
Elmendorf Tear Strength MD	20 g	20 g	ASTM D1922
Elmendorf Tear Strength TD	550 g	550 g	ASTM D1922
Puncture Force	8 lbf	35 N	ExxonMobil Method
Puncture Energy	8.7 in-lb	0.98 J	ExxonMobil Method

### Optical Properties

	Typical Value (English)	Typical Value (SI)	Test Based On
Gloss (45°)	35	35	ASTM D2457
Haze	19 %	19 %	ASTM D1003

### Legal Statement

Contact your ExxonMobil Chemical Customer Service Representative for potential food contact application compliance (e.g. FDA, EU, HPFB).

This product, including the product name, shall not be used or tested in any medical application without the prior written acknowledgement of ExxonMobil Chemical as to the intended use. For detailed Product Stewardship information, please contact Customer Service.

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).

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### 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)

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