



# PRIMACOR™ 3440 Copolymer

**Overview** PRIMACOR™ 3440 Copolymer resin is an ethylene acrylic acid copolymer suitable for extrusion coating and extrusion lamination applications.

PRIMACOR 3440 Copolymer exhibits:

- Excellent heat sealability and hot tack.
- Excellent adhesion to metallic, paper and PE substrates
- Excellent toughness.
- Excellent stress crack resistance.
- Insensitivity to moisture.
- Designed specifically for high line speeds.

Note:

PRIMACOR 3440 Copolymer should comply with FDA regulation 177.1310 and with most European food contact regulations when used unmodified and processed according to good manufacturing practices for food contact applications. Please contact your nearest office regarding food contact compliance statements. The purchaser remains responsible for determining whether the use complies with all relevant regulations.

Applications:

- Flexible packaging laminates.
- Liquid packaging laminates.

<b>Physical</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Density	0.938 g/cm <sup>3</sup>	0.938 g/cm <sup>3</sup>	ASTM D792 ISO 1183
Melt Index (190°C/2.16 kg)	11 g/10 min	11 g/10 min	ISO 1133 ASTM D1238 <sup>1</sup>
Comonomer Content	9.7 %	9.7 %	Dow Method <sup>2</sup>
<b>Mechanical</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Tensile Strength			ASTM D638 ISO 527-2
Yield, Compression Molded	1150 psi	7.93 MPa	
Break, Compression Molded	2550 psi	17.6 MPa	
Tensile Elongation			ASTM D638 ISO 527-2
Break, Compression Molded	600 %	600 %	
<b>Films</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Seal Initiation Temperature	185 °F	85.0 °C	Dow Method <sup>3</sup>
Water Vapor Transmission Rate 100°F (38°C), 90% RH	1.1 g·mil/100in <sup>2</sup> /at m/24 hr	0.41 g·mm/m <sup>2</sup> /atm/ 24 hr	DIN 53122/2
<b>Thermal</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Vicat Softening Temperature	178 °F	81.1 °C	ASTM D1525 ISO 306
Melting Temperature (DSC)	208 °F	97.8 °C	Dow Method
<b>Additional Information</b>			
Specific test settings in accordance to Inter Laboratory Round Robin programs with method priorities for ISO/ASTM.			
<b>Extrusion</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Melt Temperature	500 to 554 °F	260 to 290 °C	
Minimum Coating Thickness	0.400 mil	0.400 mil	Dow Method
Minimum Coating Weight	6.0 lb/ream	9.8 g/m <sup>2</sup>	Dow Method
Neck-in			Dow Method
550°F (288°C), 0.00100 in (0.0254 mm)	2.6 in	6.6 cm	

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## Extrusion Notes

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### Fabrication Conditions For Extrusion Coating Film:

Equipment used to process this resin should be constructed of corrosion resistant materials. Dies and adapters are recommended to be stainless steels and/or duplex chrome or nickel plated.

- Screw Size: 3.5 in. (89 mm); 30:1 L/D
- Die: 30 inch die deckled to 24 inches
- Die Gap: 20 mil (0.508 mm)
- Melt Temperature: 550°F (288°C)
- Output: 250 lb/hr
- Air Gap: 6 in. (152 mm)

## Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

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<sup>1</sup> As measured at the time of production.

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<sup>2</sup> Comonomer content measured by a DOW proprietary method that has equivalent accuracy as compared to ASTM D 4094.

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<sup>3</sup> 25 g/m<sup>2</sup> coatings at 290°C set temperature.

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