

## Technical Data Sheet

### *Petrothene* NA345196



Low Density Polyethylene

#### Product Description

*Petrothene* NA345 is a series of homopolymer resins that combine premium clarity with strength and stiffness. In addition, NA345 exhibits good impact strength on both flat and creased film. NA345 is selected by customers for textile packaging, light produce, bread bags and other thin packaging films enhanced by clarity and sparkle.

#### Regulatory Status

For regulatory compliance information, see *Petrothene* NA345196 [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

<b>Status</b>	Commercial: Active
<b>Availability</b>	North America
<b>Application</b>	Clarity Film
<b>Market</b>	Flexible Packaging
<b>Processing Method</b>	Blown Film; Cast Film

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
<b>Physical</b>					
Melt Flow Rate, (190 °C/2.16 kg)	1.8	g/10 min	1.8	g/10 min	ASTM D1238
Base Resin Density, (23 °C)	0.921	g/cm <sup>3</sup>	0.921	g/cm <sup>3</sup>	ASTM D1505
<b>Film</b>					
Dart Drop Impact Strength, F50	90	g	90	g	ASTM D1709
Tensile Strength at Break					
MD	4000	psi	27.6	MPa	ASTM D882
TD	3400	psi	23.4	MPa	ASTM D882
Tensile Strength at Yield					
MD	1500	psi	10.3	MPa	ASTM D882
TD	1600	psi	11.0	MPa	ASTM D882
Tensile Elongation at Break					
MD	300	%	300	%	ASTM D882
TD	500	%	500	%	ASTM D882
1% Secant Modulus					
MD	26000	psi	179	MPa	ASTM D882
TD	30000	psi	207	MPa	ASTM D882
Elmendorf Tear Strength					
MD	360	g	360	g	ASTM D1922
TD	200	g	200	g	ASTM D1922
<b>Thermal</b>					
Vicat Softening Temperature	212	°F	100	°C	ASTM D1525
<b>Optical</b>					
Haze	5.0	%	5.0	%	ASTM D1003

As measured on NA345196 (medium slip, medium antiblock).

Gloss, (45°)	70	70	ASTM D2457
As measured on NA345196 (medium slip, medium antiblock).			
<b>Additive</b>			
Slip	750 ppm	750 ppm	LYB Method
Antiblock	1500 ppm	1500 ppm	LYB Method

<b>Product</b>	<b>Slip(ppm)</b>	<b>Antiblock (ppm)</b>
NA345013	None	None
NA345184	None	1500
NA345196	750	1500

### Notes

Film data obtained from sample produced on a 3 1/2" (89mm) blown film line, commercially available 8" (203 mm) die, 375°F (191°C) melt extrusion temperature, 2:1 BUR, 1.25 mil (32 micron) gauge, 0.025" die gap at 130 lbs/hr.

These are typical property values not to be construed as specification limits.

### Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

### Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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Users should review the applicable Safety Data Sheet before handling the product.

This product(s) may not be used in the manufacture of any of the following, without prior written approval by Seller for each specific product and application:

- (i) U.S. FDA Class I or II Medical Devices; Health Canada Class I, II or III Medical Devices; European Union Class I or II Medical Devices;
- (ii) film, overwrap and/or product packaging that is considered a part or component of one of the aforementioned medical devices;
- (iii) packaging in direct contact with a pharmaceutical active ingredient and/or dosage form that is intended for inhalation, injection, intravenous, nasal, ophthalmic (eye), digestive, or topical (skin) administration;
- (iv) tobacco related products and applications, electronic cigarettes and similar devices.
- (v) safety components in automotive applications, for example: air bags, air bag unit housings and covers, seat belt mechanisms, brake systems, pedals and pedal supports, steering systems.

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- (i) U.S. FDA Class III Medical Devices; Health Canada Class IV Medical Devices; European Class III Medical Devices;
- (ii) applications involving permanent implantation into the body;
- (iii) life-sustaining medical applications.

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