

## LyondellBasell Petrothene® NA345009 Low Density Polyethylene (Film Extrusion)

Category : Polymer , Film , Thermoplastic , Polyethylene (PE) , LDPE , Low Density Polyethylene (LDPE), Film Grade

### Material Notes:

**Applications**PETROTHENE NA 345 is a series of homopolymer resins combining premium clarity with strength and stiffness. In addition, NA 345 exhibits good impact strength on both flat and creased film. NA 345 is recommended for textile packaging, light produce, bread bags and other thin packaging films enhanced by clarity and sparkle. The optimal values of NA 345 actually improve with decrease in film gauge and are maintained at a wide die gap settings. This fact leads to important cost savings. Film can be drawn down to a minimum gauge consistent with required physical properties, with the assurance that optical properties will not suffer, but improve. With wider die gaps back pressures are reduced, as are extrusion costs. **Regulatory Status**NA 345 meets the requirements of the Food and Drug Administration regulation 21 CFR 177.1520. This regulation allows the use of this olefin polymer in "articles or components of articles intended for use in contact with food." Specific limitations or conditions of use may apply. Contact your Equistar sales representative for more information. **Processing Techniques**Specific recommendations for processing NA 345 can only be made when the processing conditions, equipment and end use are known. For further suggestions, contact your Equistar sales representative.**Physical Properties**These are typical values and not to be construed as specific product limits. Data obtained from film produced in a 3.5"(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 lb/hr.This product is from the former Equistar product line.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_LyondellBasell-Petrothene-NA345009-Low-Density-Polyethylene-Film-Extrusion.php](http://www.lookpolymers.com/polymer_LyondellBasell-Petrothene-NA345009-Low-Density-Polyethylene-Film-Extrusion.php)

Physical Properties	Metric	English	Comments
Density	0.921 g/cc	0.0333 lb/in <sup>3</sup>	ASTM D1505
Thickness	31.8 microns	1.25 mil	2:1 BUR; 25 mil die gap
Melt Flow	1.8 g/10 min	1.8 g/10 min	ASTM D1238

Mechanical Properties	Metric	English	Comments
Film Tensile Strength at Yield, TD	11.0 MPa	1600 psi	ASTM D882
Film Elongation at Break, MD	300 %	300 %	ASTM D882
Film Elongation at Break, TD	500 %	500 %	ASTM D882
Elmendorf Tear Strength MD	360 g	360 g	ASTM D1922
Elmendorf Tear Strength TD	200 g	200 g	ASTM D1922
Dart Drop Test	90.0 g	0.198 lb	F <sub>50</sub> ; ASTM D1709
Film Tensile Strength at Break, MD	27.6 MPa	4000 psi	ASTM D882
Film Tensile Strength at Break, TD	23.4 MPa	3400 psi	ASTM D882

1% Secant Modulus, MD Mechanical Properties	179 MPa Metric	26000 psi English	ASTM D882 Comments
1% Secant Modulus, TD	207 MPa	30000 psi	ASTM D882

Thermal Properties	Metric	English	Comments
Vicat Softening Point	100 Â°C	212 Â°F	ASTM D1525

Optical Properties	Metric	English	Comments
Haze	5.0 %	5.0 %	ASTM D1003
Gloss	70 %	70 %	at 45Â°; ASTM D2457

Processing Properties	Metric	English	Comments
Melt Temperature	191 Â°C	375 Â°F	

Descriptive Properties	Value	Comments
Antiblock	None	
Slip	None	

## Contact Songhan Plastic Technology Co.,Ltd.

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