Technical Data Sheet

Petrothene NA321013

Low Density Polyethylene

Product Description

Petrothene NA321 is a series of homopolymer low density polyethylene resins designed for film applications requiring premium clarity with strength and stiffness. NA321 is selected by customers for bread bags, light produce, food packaging, bubble wrap and other packaging films enhanced by clarity and sparkle. NA321 contains an antioxidant.

Regulatory Status

For regulatory compliance information, see *Petrothene* NA321013 Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

Status	Commercial: Active
Availability	Asia-Pacific; North America; South & Central America
Application	Clarity Film; Compounding; Film Wrap; Food Packaging Film; Lamination Film; Packaging Foam, and other Foam applications; Surface Protection Film
Market	Compounding; Flexible Packaging
Processing Method	Blown Film; Cast Film; Compounding

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	2.0	g/10 min	2.0	g/10 min	ASTM D1238
Base Resin Density, (23 °C)	0.9225	g/cm³	0.9225	g/cm³	ASTM D1505
Product Density, (23 °C)	0.9225	g/cm³	0.9225	g/cm³	ASTM D1505
Film					
Dart Drop Impact Strength, F50	130	g	130	g	ASTM D1709
Tensile Strength at Break					
MD	3000	psi	21	MPa	ASTM D882
TD	2700	psi	19	MPa	ASTM D882
Tensile Strength at Yield					
MD	1600	psi	11	MPa	ASTM D882
TD	1700	psi	12	MPa	ASTM D882
Tensile Elongation at Break					
MD	400	%	400	%	ASTM D882
TD	550	%	550	%	ASTM D882
1% Secant Modulus					
MD	32000	psi	220	MPa	ASTM D882
TD	35000	psi	240	MPa	ASTM D882
Elmendorf Tear Strength					
MD	300	g	300	g	ASTM D1922
TD	300	g	300	g	ASTM D1922
Optical					
Haze	5.0	%	5.0	%	ASTM D1003
Gloss	80		80		ASTM D2457
Additive					

Manufacturer website: https://www.lyondellbasell.com/en/

Slip	None	None	LYB Method
Antiblock	None	None	LYB Method

Product	Product Density(g/cm³)	Haze(%)	Gloss( )	Slip(ppm)	Antiblock (ppm)
NA321013	0.9225	5.0	80	None	None
NA321210	0.9231	5.8	75	750	1000

Notes

Data obtained from 2.0 mil film produced on a 2" extruder with a 4" die, 370°F melt temperature, 2.5:1 BUR, 0.025" die gap at 60 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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