

Technical Data Sheet

Petrothene NA960000

Low Density Polyethylene



Product Description

Petrothene NA960 is a series of resins selected by customers for use in a wide variety of industrial film applications where high impact strength and excellent drawdown are needed. NA960 exhibits good uniformity, ease of processing and good tensile strength.

Regulatory Status

For regulatory compliance information, see *Petrothene* NA960000 [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	North America
Application	Agriculture Film; Bags & Pouches; Bottles and Vials; Bottles For Consumer Goods; Bottles for Industrial Use; Can Liners; Caps & Closures; Clear Containers; Film Wrap; Foamed Sheet; Food Packaging Film; Lamination Film; Liner Film; Opaque Containers; Secondary Packaging; Surface Protection Film
Market	Flexible Packaging; Rigid Packaging
Processing Method	Blown Film; Cast Film; Extrusion Blow Molding

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	1.0	g/10 min	1.0	g/10 min	ASTM D1238
Base Resin Density, (23 °C)	0.920	g/cm ³	0.920	g/cm ³	ASTM D1505
Mechanical					
Tensile Strength at Break	2100	psi	14.5	MPa	ASTM D638
Tensile Elongation at Break, (23 °C)	990	%	990	%	ASTM D638
Film					
Dart Drop Impact Strength, F50	85	g	85	g	ASTM D1709
Tensile Strength at Break					
MD	5300	psi	36.5	MPa	ASTM D882
TD	3100	psi	21.4	MPa	ASTM D882
Tensile Strength at Yield					
MD	1600	psi	11.0	MPa	ASTM D882
TD	1600	psi	11.0	MPa	ASTM D882
Tensile Elongation at Break					
MD	120	%	120	%	ASTM D882
TD	620	%	620	%	ASTM D882
Tensile Elongation at Yield					
MD	7	%	7	%	ASTM D882
TD	9	%	9	%	ASTM D882

1% Secant Modulus			
MD	32000 psi	221 MPa	ASTM D882
TD	43000 psi	297 MPa	ASTM D882
Elmendorf Tear Strength			
MD	500 g	500 g	ASTM D1922
TD	100 g	100 g	ASTM D1922
Thermal			
Vicat Softening Temperature	198 °F	92 °C	ASTM D1525
Additive			
Slip	None	None	LYB Method
Antiblock	None	None	LYB Method

Product	Slip(ppm)	Antiblock (ppm)
NA960000	None	None
NA960070	500	1500
NA960183	None	4000

Notes

Mechanical data derived from Type IV specimen, 75 mil plaque @ 20" per minute.

Data obtained from 1.1 mil film produced on a 2" blown film line, commercially available 4" die, 350°F (177°C) melt extrusion temperature, 2:1 BUR with a 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/>.

© LyondellBasell Industries Holdings, B.V. 2017

Disclaimer

Before using a product sold by a company of the LyondellBasell family of companies, users should make their own independent determination that the product is suitable for the intended use and can be used safely and legally.

SELLER MAKES NO WARRANTY; EXPRESS OR IMPLIED (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY WARRANTY) OTHER THAN AS SEPARATELY AGREED TO BY THE PARTIES IN A CONTRACT.

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.

The product(s) may not be used in:

- (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.

All references to U.S. FDA, Health Canada, and European Union regulations include another country's equivalent regulatory classification.

In addition to the above, LyondellBasell may further prohibit or restrict the use of its products in certain applications. For further information, please contact a LyondellBasell representative.

Trademarks

Adflex, Adstif, Adsyl, Akoafloor, Akoalit, Alastian, Alathon, Alkylate, Amazing Chemistry, Aquamarine, Aquathene, Avant, Catalloy, Clyrell, CRP, Crystex, Dexflex, Duopac, Duoprime, Explore & Experiment, Filmex, Flexathene, Fueling the power to win, Glacido, Hifax, Hiflex, Histif, Hostacom, Hostalen, Hyperzone, Ideal, Indure, Integrate, Koattro, LIPP, Lucalen, Luflexen, Lupolen, Luposim, Lupostress, Lupotech, Metocene, Microthene, Moplen, MPDIOL, Nerolex, Nexprene, Petrothene, Plexar, Polymeg, Pristene, Prodflex, Pro-fax, Punctilious, Purell, Refax, SAA100, SAA101, Sequel, Softell, Spherilene, Spheripol, Spherizone, Starflex, Stretchene, Superflex, TBAC, Tebol, T-Hydro, Toppyl, Trans4m, Tufflo, Ultrathene, Vacido and Valtec are trademarks owned and/or used by the LyondellBasell family of companies.

Adsyl, Akoafloor, Akoalit, Alastian, Alathon, Aquamarine, Avant, CRP, Crystex, Dexflex, Duopac, Duoprime, Explore & Experiment, Filmex, Flexathene, Hifax, Hostacom, Hostalen, Ideal, Integrate, Koattro, Lucalen, Lupolen, Metocene, Microthene, Moplen, MPDIOL, Nexprene, Petrothene, Plexar, Polymeg, Pristene, Pro-fax, Punctilious, Purell, Sequel, Softell, Spheripol, Spherizone, Starflex, Tebol, T-Hydro, Toppyl, Tufflo and Ultrathene are registered in the U.S. Patent and Trademark Office.

