

Technical Data Sheet

Petrothene NA442051

Ethylene Vinyl Acetate



Product Description

Petrothene NA442051 is a LDPE/EVA copolymer resin selected by customers for high impact/high clarity packaging and lamination applications.

Regulatory Status

For regulatory compliance information, see *Petrothene* NA442051 [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	North America
Application	Bags & Pouches; Clarity Film; Film Wrap; Food Packaging Film; Lamination Film; Sealants; Secondary Packaging; Specialty Film
Market	Flexible Packaging
Processing Method	Blown Film; Cast Film

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	1.5	g/10 min	1.5	g/10 min	ASTM D1238
Vinyl Acetate Content	5.0	%	5.0	%	LYB Method
Film					
Dart Drop Impact Strength, F50	140	g	140	g	ASTM D1709
Tensile Strength at Break					
MD	3600	psi	24.8	MPa	ASTM D882
TD	2800	psi	19.3	MPa	ASTM D882
Tensile Elongation at Break					
MD	320	%	320	%	ASTM D882
TD	550	%	550	%	ASTM D882
1% Secant Modulus					
MD	19000	psi	131	MPa	ASTM D882
TD	24000	psi	165	MPa	ASTM D882
Elmendorf Tear Strength					
MD	160	g	160	g	ASTM D1922
TD	180	g	180	g	ASTM D1922
Thermal					
Vicat Softening Temperature	190	°F	88	°C	ASTM D1525
Optical					
Haze	4	%	4	%	ASTM D1003
Gloss, (45°)	75		75		ASTM D2457
Additive					
Slip	500	ppm	500	ppm	LYB Method

LyondellBasell
Technical Data Sheet
Date: 7/25/2017

Page 1 of 4

Petrothene NA442051
Recipient Tracking #:
Request #: 907709

Antiblock	1000 ppm	1000 ppm	LYB Method
Processing Parameters			
Melt Temperature	330 - 380 °F	166 - 194 °C	
Blow-Up Ratio	1.7 - 3.0 BUR	1.7 - 3.0 BUR	

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/>.

© 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.

