Technical Data Sheet

Petrothene NA143063

Low Density Polyethylene

Product Description

Petrothene NA143063 is a homopolymer resin selected by customers for blown film. Typical applications include stiff liners. NA143063 exhibits good processability and clarity.

lyondellbasell

Regulatory Status

For regulatory compliance information, see *Petrothene* NA143063 <u>Product Stewardship Bulletin (PSB) and</u> <u>Safety Data Sheet (SDS)</u>.

| Status | Commercial |
|-------------------|---|
| Availability | North America |
| Application | Bags & Pouches; Can Liners; Clarity Film; Film Wrap; Food Packaging Film; Lamination Film; Liner Film; Surface Protection Film |
| Market | Flexible Packaging |
| Processing Method | Blown Film; Cast Film |

| Typical Properties | Nominal Value | English Units | Nominal Value | | Test Method |
|----------------------------------|------------------|-------------------|------------------|-------------------|-------------|
| Physical | Value | 01113 | Value | Onito | |
| Melt Flow Rate, (190 °C/2.16 kg) | 2.0 | g/10 min | 2.0 | g/10 min | ASTM D1238 |
| Density, (23 °C) | | g/cm ³ | 0.922 | g/cm ³ | ASTM D1505 |
| Mechanical | | <u> </u> | | 0 | |
| Tensile Strength | 1720 | psi | 11.9 | MPa | ASTM D638 |
| Tensile Elongation at Break | 650 | • | 650 | % | ASTM D638 |
| Film | | | | | |
| Dart Drop Impact Strength, F50 | 130 | g | 130 | g | ASTM D1709 |
| Tensile Strength at Break | | | | | |
| MD | 2800 | psi | 19.3 | MPa | ASTM D882 |
| TD | 2700 | psi | 18.6 | MPa | ASTM D882 |
| Tensile Strength at Yield | | | | | |
| MD | 1600 | psi | 11.0 | MPa | ASTM D882 |
| TD | 1650 | psi | 11.4 | MPa | ASTM D882 |
| Tensile Elongation at Break | | | | | |
| MD | 360 | % | 360 | % | ASTM D882 |
| TD | 540 | % | 540 | % | ASTM D882 |
| 1% Secant Modulus | | | | | |
| MD | 28000 | psi | 193 | MPa | ASTM D882 |
| TD | 31000 | psi | 214 | MPa | ASTM D882 |
| Elmendorf Tear Strength | | | | | |
| MD | 300 | g | 300 | g | ASTM D1922 |
| TD | 265 | g | 265 | g | ASTM D1922 |
| Thermal | | | | | |
| Vicat Softening Temperature | 199 | °F | 93 | °C | ASTM D1525 |

| Optical | | | | | |
|--------------|------|-----|------|-----|------------|
| Haze | 7 | % | 7 | % | ASTM D1003 |
| Gloss, (45°) | 70 | | 70 | | ASTM D2457 |
| Additive | | | | | |
| Slip | 750 | ppm | 750 | ppm | LYB Method |
| Antiblock | 1500 | ppm | 1500 | ppm | LYB Method |

Notes

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

Data obtained from 2.0 mil (51 micron) film produced on a blown film line with a 4" (102 mm) die, 370 °F (188 °C) 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/.

© LyondellBasell Industries Holdings, B.V. 2018

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.