

## Technical Data Sheet

### *Petrothene* GA564189



Linear Low Density Polyethylene

#### Product Description

*Petrothene* GA564189 exhibits good stiffness and low temperature toughness. Typical applications include trash cans, industrial containers, housewares and toys.

#### Regulatory Status

For regulatory compliance information, see *Petrothene* GA564189 [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

<b>Status</b>	Commercial: Active
<b>Availability</b>	North America
<b>Application</b>	Housewares; Outdoor and Power Tools; Sports, Leisure & Toys; Trash Cans; Wire & Cable
<b>Market</b>	Compounding; Rigid Packaging; Wire & Cable
<b>Processing Method</b>	Compounding; Injection Molding; Wire & Cable

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
<b>Physical</b>					
Melt Flow Rate, (190 °C/2.16 kg)	20	g/10 min	20	g/10 min	ASTM D1238
Density, (23 °C)	0.924	g/cm <sup>3</sup>	0.924	g/cm <sup>3</sup>	ASTM D1505
Spiral Flow	12.6	in	32.1	cm	LYB Method
<b>Mechanical</b>					
Flexural Modulus					
(1% Secant)	63000	psi	440	MPa	ASTM D790
(2% Secant)	55000	psi	380	MPa	ASTM D790
Tensile Strength at Break, (23 °C)	1200	psi	8	MPa	ASTM D638
Tensile Strength at Yield, (23 °C)	2100	psi	14	MPa	ASTM D638
Tensile Elongation at Yield, (23 °C)	12	%	12	%	ASTM D638
<b>Hardness</b>					
Shore Hardness, (Shore D)	57		57		ASTM D2240
<b>Thermal</b>					
Vicat Softening Temperature	196	°F	91	°C	ASTM D1525
Low Temperature Brittleness, F <sub>50</sub>	<-105	°F	<-76	°C	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	113	°F	45	°C	ASTM D648

#### Notes

Tensile properties were run with a crosshead speed of 20 inches/min or 500 mm/min.

Flexural Modulus properties were run with a crosshead speed of 0.5 inches/min or 12.5 mm/min.

Spiral Flow measures the number of inches of flow produced when molten resin is injected into a long, spiral channel (0.0625" insert), at a constant injection pressure of 1000 psi with a melt temperature of 440 °F.

Deflection Temperature Under Load and Low Temperature Brittleness data are for control and development work and are not intended for use in design or predicting performance at elevated or sub-ambient temperatures.

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.