

# Petrothene® GA574000

Linear Low Density Polyethylene

LyondellBasell Industries

PROSPECTOR®

www.ulprospector.com

## Technical Data

### Product Description

PETROTHENE GA 574-000 exhibits excellent flow and impact with good stiffness. Typical applications include lids, closures, containers, housewares and medical items.

Without exception, all potential activities for applications in the pharmaceutical, medical device, laboratory and diagnostics area have to be discussed with the relevant Technical (P & AD) and Business contacts first.

### General

|                           |                                                                                                     |                                              |                                   |
|---------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------|
| Material Status           | • Commercial: Active                                                                                |                                              |                                   |
| Literature <sup>1</sup>   | • Processing - Mold Shrink (English)<br>• Processing - Polyolefin Injection Molding Guide (English) |                                              |                                   |
| Search for UL Yellow Card | • LyondellBasell Industries<br>• Petrothene®                                                        |                                              |                                   |
| Availability              | • Asia Pacific<br>• Europe                                                                          | • Latin America<br>• North America           |                                   |
| Features                  | • Food Contact Acceptable<br>• Good Flow                                                            | • Good Impact Resistance<br>• Good Stiffness |                                   |
| Uses                      | • Closures<br>• Containers                                                                          | • Household Goods<br>• Lids                  | • Medical/Healthcare Applications |
| Agency Ratings            | • FDA 21 CFR 177.1520                                                                               |                                              |                                   |
| Forms                     | • Pellets                                                                                           |                                              |                                   |
| Processing Method         | • Injection Molding                                                                                 |                                              |                                   |

| Physical                                                           | Nominal Value (English) | Nominal Value (SI)      | Test Method |
|--------------------------------------------------------------------|-------------------------|-------------------------|-------------|
| Density                                                            | 0.926 g/cm <sup>3</sup> | 0.926 g/cm <sup>3</sup> | ASTM D1505  |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)                          | 50 g/10 min             | 50 g/10 min             | ASTM D1238  |
| Mechanical                                                         | Nominal Value (English) | Nominal Value (SI)      | Test Method |
| Tensile Strength                                                   |                         |                         | ASTM D638   |
| Yield <sup>3</sup>                                                 | 2100 psi                | 14.5 MPa                |             |
| Break                                                              | 1500 psi                | 10.3 MPa                |             |
| Tensile Elongation <sup>3</sup> (Yield)                            | 8.2 %                   | 8.2 %                   | ASTM D638   |
| Flexural Modulus <sup>4</sup>                                      |                         |                         | ASTM D790   |
| 1% Secant                                                          | 64000 psi               | 441 MPa                 |             |
| 2% Secant                                                          | 60000 psi               | 414 MPa                 |             |
| Hardness                                                           | Nominal Value (English) | Nominal Value (SI)      | Test Method |
| Durometer Hardness (Shore D)                                       | 52                      | 52                      | ASTM D2240  |
| Thermal                                                            | Nominal Value (English) | Nominal Value (SI)      | Test Method |
| Deflection Temperature Under Load<br>66 psi (0.45 MPa), Unannealed | 122 °F                  | 50.0 °C                 | ASTM D648   |
| Brittleness Temperature                                            | -105 °F                 | -76.0 °C                | ASTM D746   |
| Vicat Softening Temperature                                        | 205 °F                  | 96.0 °C                 | ASTM D1525  |

### Additional Information

Spiral Flow, Equistar Test Method, 0.625 in insert, 1000 psi injection pressure, 440°F melt temperature: 19.3 in

| Injection          | Nominal Value (English) | Nominal Value (SI) |
|--------------------|-------------------------|--------------------|
| Rear Temperature   | 350 °F                  | 177 °C             |
| Middle Temperature | 375 °F                  | 191 °C             |
| Front Temperature  | 400 °F                  | 204 °C             |
| Nozzle Temperature | 400 °F                  | 204 °C             |



#### Notes

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> Typical properties: these are not to be construed as specifications.

<sup>3</sup> 20 in/min (510 mm/min)

<sup>4</sup> 0.50 in/min (13 mm/min)



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### Where to Buy

#### Supplier

##### LyondellBasell Industries

Wilmington, DE USA

Telephone: 713-309-7200

Web: <http://polymers.lyondellbasell.com/portal/site/basell/>

#### Distributor

##### M. Holland Canada Company

Telephone: 905-665-1168

Web: <http://www.mholland.com/>

Availability: Canada

##### M. Holland Company

Telephone: 855-497-1403

Web: <http://www.mholland.com/>

Availability: Mexico, United States

##### Nexeo Solutions

Telephone: 888-594-6009

Web: <http://www.nexeosolutions.com/>

Availability: North America

