

## Technical Data Sheet

### Petrothene NA952000



Low Density Polyethylene

#### Product Description

*Petrothene* NA952000 is a low density polyethylene for use in blow molding, injection molding, packaging, as well as liner and bag applications. This resin exhibits excellent toughness, good softness and good dimensional stability. NA952000 is selected by customers for use in injection molding caps, closures, blow molding squeeze bottles and other specialty applications. NA952000 has an excellent balance of processability, toughness, and drawdown.

#### Regulatory Status

For regulatory compliance information, see *Petrothene* NA952000 [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; Clear Containers; Film Wrap; Foamed Sheet; Food Packaging Film; Lamination Film; Liner Film; Opaque Containers; Sealants; Secondary Packaging; Surface Protection Film

**Market** Flexible Packaging; Rigid Packaging

**Processing Method** Blown Film; Cast Film; Extrusion Blow Molding; Injection Molding

| Typical Properties               | Nominal Value | English Units     | Nominal Value | SI Units          | Test Method |
|----------------------------------|---------------|-------------------|---------------|-------------------|-------------|
| <b>Physical</b>                  |               |                   |               |                   |             |
| Melt Flow Rate, (190 °C/2.16 kg) | 2.0           | g/10 min          | 2.0           | g/10 min          | ASTM D1238  |
| Base Resin Density, (23 °C)      | 0.919         | g/cm <sup>3</sup> | 0.919         | g/cm <sup>3</sup> | ASTM D1505  |
| Product Density, (23 °C)         | 0.919         | g/cm <sup>3</sup> | 0.919         | g/cm <sup>3</sup> | ASTM D1505  |
| <b>Mechanical</b>                |               |                   |               |                   |             |
| Tensile Strength                 | 1800          | psi               | 12.4          | MPa               | ASTM D638   |
| Tensile Elongation at Break      | 650           | %                 | 650           | %                 | ASTM D638   |
| <b>Film</b>                      |               |                   |               |                   |             |
| Dart Drop Impact Strength, F50   | 110           | g                 | 110           | g                 | ASTM D1709  |
| Tensile Strength at Break        |               |                   |               |                   |             |
| MD                               | 3200          | psi               | 22.1          | MPa               | ASTM D882   |
| TD                               | 2300          | psi               | 15.9          | MPa               | ASTM D882   |
| Tensile Elongation at Break      |               |                   |               |                   |             |
| MD                               | 200           | %                 | 200           | %                 | ASTM D882   |
| TD                               | 500           | %                 | 500           | %                 | ASTM D882   |
| 1% Secant Modulus                |               |                   |               |                   |             |
| MD                               | 26500         | psi               | 183           | MPa               | ASTM D882   |
| TD                               | 32000         | psi               | 221           | MPa               | ASTM D882   |
| Elmendorf Tear Strength          |               |                   |               |                   |             |
| MD                               | 350           | g                 | 350           | g                 | ASTM D1922  |
| TD                               | 70            | g                 | 70            | g                 | ASTM D1922  |
| <b>Thermal</b>                   |               |                   |               |                   |             |
| Vicat Softening Temperature      | 185           | °F                | 85            | °C                | ASTM D1525  |

| <b>Additive</b> |      |      |            |
|-----------------|------|------|------------|
| Slip            | None | None | LYB Method |
| Antiblock       | None | None | LYB Method |

| <b>Product</b> | <b>Product Density(g/cm<sup>3</sup>)</b> | <b>Slip(ppm)</b> | <b>Antiblock (ppm)</b> |
|----------------|------------------------------------------|------------------|------------------------|
| NA952000       | 0.919                                    | None             | None                   |
| NA952094       | 0.921                                    | 500              | 4000                   |

## Notes

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

Data obtained from 1.25 mil (32 micron) film produced on a blown film line with a 8" (203 mm) die, 350°F (177°C) melt temperature, 2:1 BUR, 0.025" die gap at 150 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

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