

## Technical Data Sheet

### *Petrothene* NA952094

Low Density Polyethylene



#### Product Description

*Petrothene* NA952094 is a low density homopolymer resin selected by customers for use in industrial and consumer packaging as well as liner and bag applications. NA952094 has an excellent balance of processability, toughness and drawdown.

|                          |                                                                                                                                                         |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Application</b>       | Agriculture Film; Bags & Pouches; Can Liners; Film Wrap; Food Packaging Film; Lamination Film; Liner Film; Secondary Packaging; Surface Protection Film |
| <b>Market</b>            | Flexible Packaging                                                                                                                                      |
| <b>Processing Method</b> | Blown Film; Cast Film                                                                                                                                   |

| 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)         | 0.921         | g/cm <sup>3</sup> | 0.921         | 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                             | 500           | ppm               | 500           | ppm               | LYB Method  |
| Antiblock                        | 4000          | ppm               | 4000          | ppm               | LYB Method  |



| Product  | Product<br>Density(g/cm <sup>3</sup> ) | Slip(ppm) | Antiblock<br>(ppm) |
|----------|----------------------------------------|-----------|--------------------|
| 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.

