

## 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.

|                          |                                                                                                                                |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>Application</b>       | Bags & Pouches; Can Liners; Clarity Film; Film Wrap; Food Packaging Film; Lamination Film; Liner Film; 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  |
| Density, (23 °C)                 | 0.922         | g/cm <sup>3</sup> | 0.922         | g/cm <sup>3</sup> | ASTM D1505  |
| <b>Mechanical</b>                |               |                   |               |                   |             |
| Tensile Strength                 | 1720          | psi               | 11.9          | MPa               | ASTM D638   |
| Tensile Elongation at Break      | 650           | %                 | 650           | %                 | ASTM D638   |
| <b>Film</b>                      |               |                   |               |                   |             |
| 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  |
| <b>Thermal</b>                   |               |                   |               |                   |             |
| Vicat Softening Temperature      | 199           | °F                | 93            | °C                | ASTM D1525  |
| <b>Optical</b>                   |               |                   |               |                   |             |
| Haze                             | 7             | %                 | 7             | %                 | ASTM D1003  |



|                 |          |          |            |
|-----------------|----------|----------|------------|
| Gloss, (45°)    | 70       | 70       | ASTM D2457 |
| <b>Additive</b> |          |          |            |
| 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.

