

## Technical Data Sheet

### *Petrothene* NA443023



Ethylene Vinyl Acetate

#### Product Description

*Petrothene* NA443023 is a LDPE/EVA copolymer resin selected by customers for high impact/high clarity packaging applications.

**Application** Bags & Pouches; Clarity Film; Film Wrap; Lamination Film; Specialty Film

**Market** Flexible Packaging

**Processing Method** 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) | 1.2           | g/10 min          | 1.2           | g/10 min          | ASTM D1238  |
| Base Resin Density, (23 °C)      | 0.927         | g/cm <sup>3</sup> | 0.927         | g/cm <sup>3</sup> | ASTM D1505  |
| Vinyl Acetate Content            | 4.5           | %                 | 4.5           | %                 | LYB Method  |
| <b>Film</b>                      |               |                   |               |                   |             |
| Dart Drop Impact Strength, F50   | 150           | g                 | 150           | g                 | ASTM D1709  |
| Tensile Strength at Break        |               |                   |               |                   |             |
| MD                               | 4000          | psi               | 27.6          | MPa               | ASTM D882   |
| TD                               | 2900          | psi               | 20.0          | MPa               | ASTM D882   |
| Tensile Elongation at Break      |               |                   |               |                   |             |
| MD                               | 350           | %                 | 350           | %                 | ASTM D882   |
| TD                               | 550           | %                 | 550           | %                 | ASTM D882   |
| 1% Secant Modulus                |               |                   |               |                   |             |
| MD                               | 20000         | psi               | 138           | MPa               | ASTM D882   |
| TD                               | 18000         | psi               | 124           | MPa               | ASTM D882   |
| Elmendorf Tear Strength          |               |                   |               |                   |             |
| MD                               | 140           | g                 | 140           | g                 | ASTM D1922  |
| TD                               | 200           | g                 | 200           | g                 | ASTM D1922  |
| <b>Thermal</b>                   |               |                   |               |                   |             |
| Vicat Softening Temperature      | 190           | °F                | 88            | °C                | ASTM D1525  |
| <b>Optical</b>                   |               |                   |               |                   |             |
| Haze                             | 3             | %                 | 3             | %                 | ASTM D1003  |
| Gloss, (45°)                     | 77            |                   | 77            |                   | ASTM D2457  |
| <b>Additive</b>                  |               |                   |               |                   |             |
| Slip                             | None          |                   | None          |                   | LYB Method  |
| Antiblock                        | None          |                   | None          |                   | LYB Method  |
| <b>Processing Parameters</b>     |               |                   |               |                   |             |
| Melt Temperature                 | 330 - 380     | °F                | 166 - 194     | °C                |             |
| Blow-Up Ratio                    | 1.7 - 3.0     | BUR               | 1.7 - 3.0     | BUR               |             |