

## Technical Data Sheet

### *Petrothene* NA490177

Ethylene Vinyl Acetate



#### Product Description

*Petrothene* NA490177 is a LDPE/EVA copolymer resin selected by customers for use in specialty films. NA490177 contains antiblock and is used to produce film with excellent puncture resistance, impact strength, heat sealability, clarity and low temperature flexibility. Typical applications include frozen food packaging, bundling and heavy-duty bags.

|                          |                                                                                                                                         |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Application</b>       | Agriculture Film; Bags & Pouches; Film Wrap; Food Packaging Film; Heavy Duty Packaging; Liner Film; Sealants; Shrink Film; Stretch Hood |
| <b>Market</b>            | Flexible Packaging                                                                                                                      |
| <b>Processing Method</b> | Blown Film                                                                                                                              |

| Typical Properties               | Nominal Value | English Units     | Nominal Value | SI Units          | Test Method |
|----------------------------------|---------------|-------------------|---------------|-------------------|-------------|
| <b>Physical</b>                  |               |                   |               |                   |             |
| Melt Flow Rate, (190 °C/2.16 kg) | 0.30          | g/10 min          | 0.30          | g/10 min          | ASTM D1238  |
| Base Resin Density, (23 °C)      | 0.923         | g/cm <sup>3</sup> | 0.923         | g/cm <sup>3</sup> | ASTM D1505  |
| Product Density, (23 °C)         | 0.926         | g/cm <sup>3</sup> | 0.926         | g/cm <sup>3</sup> | ASTM D1505  |
| Vinyl Acetate Content            | 4.5           | %                 | 4.5           | %                 | LYB Method  |
| <b>Film</b>                      |               |                   |               |                   |             |
| Dart Drop Impact Strength, F50   | 320           | g                 | 320           | g                 | ASTM D1709  |
| Tensile Strength at Break        |               |                   |               |                   |             |
| MD                               | 3200          | psi               | 22.1          | MPa               | ASTM D882   |
| TD                               | 3000          | psi               | 20.7          | MPa               | ASTM D882   |
| Tensile Elongation at Break      |               |                   |               |                   |             |
| MD                               | 370           | %                 | 370           | %                 | ASTM D882   |
| TD                               | 550           | %                 | 550           | %                 | ASTM D882   |
| 1% Secant Modulus                |               |                   |               |                   |             |
| MD                               | 19000         | psi               | 131           | MPa               | ASTM D882   |
| TD                               | 23000         | psi               | 159           | MPa               | ASTM D882   |
| Elmendorf Tear Strength          |               |                   |               |                   |             |
| MD                               | 150           | g                 | 150           | g                 | ASTM D1922  |
| TD                               | 250           | g                 | 250           | g                 | ASTM D1922  |
| <b>Thermal</b>                   |               |                   |               |                   |             |
| Vicat Softening Temperature      | 190           | °F                | 88            | °C                | ASTM D1525  |
| <b>Additive</b>                  |               |                   |               |                   |             |
| Slip                             | None          |                   | None          |                   | LYB Method  |
| Antiblock                        | 6000          | ppm               | 6000          | ppm               | LYB Method  |

