

### Technical Data Sheet



### Petrothene NA942085

Low Density Polyethylene

#### Product Description

Petrothene NA942085 is selected by customers for heavy duty film applications, such as bags used to package fertilizer, peat moss, decorative stone and agricultural and construction materials. NA942085 exhibits excellent impact properties and puncture resistance.

#### Regulatory Status

For regulatory compliance information, see Petrothene NA942085 [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

|                          |                                                                                                                                                |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Status</b>            | Commercial: Active                                                                                                                             |
| <b>Availability</b>      | North America                                                                                                                                  |
| <b>Application</b>       | Agriculture Film; Bags & Pouches; Can Liners; Film Wrap; Heavy Duty Packaging; Liner Film; Shrink Film; Specialty Film; Textile Packaging Film |
| <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)             | 0.18          | g/10 min      | 0.18          | g/10 min | ASTM D1238  |
| Base Resin Density, (23 °C)                  | 0.918         | g/cm³         | 0.918         | g/cm³    | ASTM D1505  |
| <b>Mechanical</b>                            |               |               |               |          |             |
| Tensile Strength at Break                    | 2600          | psi           | 17.9          | MPa      | ASTM D638   |
| Tensile Strength at Yield                    | 1400          | psi           | 9.65          | MPa      | ASTM D638   |
| Tensile Elongation at Break                  | 750           | %             | 750           | %        | ASTM D638   |
| Tensile Elongation at Yield                  | 100           | %             | 100           | %        | ASTM D638   |
| <b>Film</b>                                  |               |               |               |          |             |
| Dart Drop Impact Strength, F50               | 220           | g             | 220           | g        | ASTM D1709  |
| Tensile Strength at Break, MD                | 3000          | psi           | 20.7          | MPa      | ASTM D882   |
| <b>Hardness</b>                              |               |               |               |          |             |
| Shore Hardness, (Shore D)                    | 42            |               | 42            |          | ASTM D2240  |
| <b>Thermal</b>                               |               |               |               |          |             |
| Low Temperature Brittleness, F <sub>50</sub> | -103          | °F            | -75           | °C       | ASTM D746   |
| <b>Additive</b>                              |               |               |               |          |             |
| Slip                                         | None          |               | None          |          | LYB Method  |
| Antiblock                                    | 4000          | ppm           | 4000          | ppm      | LYB Method  |



### Notes

Data obtained from 2.0 mil (51 micron) film produced on a blown film line with a 8" (203 mm) die, 430°F (221°C) melt temperature, 2:1 BUR, 0.025" die gap at 170 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

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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