

## Technical Data Sheet

### *Petrothene* NA870252

Low Density Polyethylene



#### Product Description

*Petrothene* NA870252 exhibits an excellent balance of toughness and softness with excellent dimensional stability. This resin contains a mold release agent and displays excellent part ejection properties. Typical applications include caps and closures, housewares, toys, containers and novelty items.

#### Regulatory Status

For regulatory compliance information, see *Petrothene* NA870252 [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

|                   |                    |
|-------------------|--------------------|
| Status            | Commercial: Active |
| Availability      | North America      |
| Application       | Caps & Closures    |
| Market            | Rigid Packaging    |
| Processing Method | Injection Molding  |

| Typical Properties                           | Nominal Value | English Units     | Nominal Value | SI Units          | Test Method |
|----------------------------------------------|---------------|-------------------|---------------|-------------------|-------------|
| <b>Physical</b>                              |               |                   |               |                   |             |
| Melt Flow Rate, (190 °C/2.16 kg)             | 38            | g/10 min          | 38            | g/10 min          | ASTM D1238  |
| Density, (23 °C)                             | 0.921         | g/cm <sup>3</sup> | 0.921         | g/cm <sup>3</sup> | ASTM D1505  |
| <b>Mechanical</b>                            |               |                   |               |                   |             |
| Flexural Modulus                             |               |                   |               |                   |             |
| (1% Secant)                                  | 33000         | psi               | 230           | MPa               | ASTM D790   |
| (2% Secant)                                  | 27000         | psi               | 190           | MPa               | ASTM D790   |
| Tensile Strength at Break                    | 1300          | psi               | 9             | MPa               | ASTM D638   |
| Tensile Strength at Yield                    | 1850          | psi               | 13            | MPa               | ASTM D638   |
| Tensile Elongation at Yield                  | 13            | %                 | 13            | %                 | ASTM D638   |
| <b>Hardness</b>                              |               |                   |               |                   |             |
| Shore Hardness, (Shore D)                    | 41            |                   | 41            |                   | ASTM D2240  |
| <b>Thermal</b>                               |               |                   |               |                   |             |
| Vicat Softening Temperature                  | 187           | °F                | 86            | °C                | ASTM D1525  |
| Low Temperature Brittleness, F <sub>50</sub> | -13           | °F                | -25           | °C                | ASTM D746   |

## Notes

Tensile properties were run with a crosshead speed of 20 inches/min or 500 mm/min.

Flexural Modulus properties were run with a crosshead speed of 0.5 inches/min or 12.5 mm/min.

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

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