

## Technical Data Sheet

### *Petrothene* GA564189

Linear Low Density Polyethylene

#### Product Description

*Petrothene* GA564189 exhibits good stiffness and low temperature toughness. Typical applications include trash cans, industrial containers, housewares and toys.

|                          |                                                                                       |
|--------------------------|---------------------------------------------------------------------------------------|
| <b>Application</b>       | Housewares; Outdoor and Power Tools; Sports, Leisure & Toys; Trash Cans; Wire & Cable |
| <b>Market</b>            | Compounding; Rigid Packaging; Wire & Cable                                            |
| <b>Processing Method</b> | Compounding; Injection Molding; Wire & Cable                                          |

| Typical Properties                                      | Nominal Value | English Units     | Nominal Value | SI Units          | Test Method |
|---------------------------------------------------------|---------------|-------------------|---------------|-------------------|-------------|
| <b>Physical</b>                                         |               |                   |               |                   |             |
| Melt Flow Rate, (190 °C/2.16 kg)                        | 20            | g/10 min          | 20            | g/10 min          | ASTM D1238  |
| Density, (23 °C)                                        | 0.924         | g/cm <sup>3</sup> | 0.924         | g/cm <sup>3</sup> | ASTM D1505  |
| Spiral Flow                                             | 12.6          | in                | 32.1          | cm                | LYB Method  |
| <b>Mechanical</b>                                       |               |                   |               |                   |             |
| Flexural Modulus                                        |               |                   |               |                   |             |
| (1% Secant)                                             | 63000         | psi               | 440           | MPa               | ASTM D790   |
| (2% Secant)                                             | 55000         | psi               | 380           | MPa               | ASTM D790   |
| Tensile Strength at Break, (23 °C)                      | 1200          | psi               | 8             | MPa               | ASTM D638   |
| Tensile Strength at Yield, (23 °C)                      | 2100          | psi               | 14            | MPa               | ASTM D638   |
| Tensile Elongation at Yield, (23 °C)                    | 12            | %                 | 12            | %                 | ASTM D638   |
| <b>Hardness</b>                                         |               |                   |               |                   |             |
| Shore Hardness, (Shore D)                               | 57            |                   | 57            |                   | ASTM D2240  |
| <b>Thermal</b>                                          |               |                   |               |                   |             |
| Vicat Softening Temperature                             | 196           | °F                | 91            | °C                | ASTM D1525  |
| Low Temperature Brittleness, F <sub>50</sub>            | <-105         | °F                | <-76          | °C                | ASTM D746   |
| Deflection Temperature Under Load, (66 psi, Unannealed) | 113           | °F                | 45            | °C                | ASTM D648   |