

## LyondellBasell Petrothene® GA564189 Linear Low Density Polyethylene, Injection Molding Grade

Category : Polymer , Thermoplastic , Polyethylene (PE) , LLDPE , Linear Low Density Polyethylene (LLDPE), Injection Molded

### Material Notes:

PETROTHENE GA564189 exhibits good stiffness and low temperature toughness. Typical applications include trash cans, industrial containers, housewares and toys. Regulatory Status: GA564189 meets the requirements of the Food and Drug Administration 21 CFR 177.1520. This regulation allows the use of this olefin polymer in articles or components or articles intended for use in contact with food. Specific limitations or conditions of use may apply. Contact your Equistar sales representative for more information. Specific recommendations for processing GA564189 can only be made when the processing conditions, equipment and end use are known. For further suggestions, please contact your Equistar sales representative. This product is from the former Equistar product line.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_LyondellBasell-Petrothene-GA564189-Linear-Low-Density-Polyethylene-Injection-Molding-Grade.php](http://www.lookpolymers.com/polymer_LyondellBasell-Petrothene-GA564189-Linear-Low-Density-Polyethylene-Injection-Molding-Grade.php)

| Physical Properties | Metric      | English                   | Comments      |
|---------------------|-------------|---------------------------|---------------|
| Density             | 0.924 g/cc  | 0.0334 lb/in <sup>3</sup> | ASTM D1505    |
| Melt Flow           | 21 g/10 min | 21 g/10 min               | ASTM D1238    |
| Spiral Flow         | 32.8 cm     | 12.9 in                   | Equistar test |

| Mechanical Properties     | Metric    | English   | Comments            |
|---------------------------|-----------|-----------|---------------------|
| Hardness, Shore D         | 53        | 53        | ASTM D2240          |
| Tensile Strength at Break | 8.27 MPa  | 1200 psi  | ASTM D638           |
| Tensile Strength, Yield   | 13.8 MPa  | 2000 psi  | 20"/min; ASTM D638  |
| Elongation at Yield       | 12 %      | 12 %      | 20"/min; ASTM D638  |
| 1% Secant Modulus         | 379 MPa   | 55000 psi | 0.5"/min; ASTM D790 |
| 2% Secant Modulus         | 0.317 GPa | 46.0 ksi  | 0.5"/min; ASTM D790 |

| Thermal Properties                          | Metric      | English    | Comments                  |
|---|-------------|------------|---------------------------|
| Deflection Temperature at 0.46 MPa (66 psi) | 47.0 °C     | 117 °F     | ASTM D648                 |
| Vicat Softening Point                       | 96.0 °C     | 205 °F     | ASTM D1525                |
| Brittleness Temperature                     | <= -76.0 °C | <= -105 °F | F<SUB>50</SUB>; ASTM D746 |

| Processing Properties   | Metric | English | Comments |
|-------------------------|--------|---------|----------|
| Rear Barrel Temperature | 177 °C | 350 °F  |          |

| Processing Properties     | Metric  | English | Comments |
|---------------------------|---------|---------|----------|
| Middle Barrel Temperature | 191 Å°C | 375 Å°F |          |
| Front Barrel Temperature  | 204 Å°C | 400 Å°F |          |
| Nozzle Temperature        | 204 Å°C | 400 Å°F |          |

## Contact Songhan Plastic Technology Co.,Ltd.

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