

Petrothene

GA568189

Linear Low Density Polyethylene

Injection Molding Grade

Melt Index 33 Density 0.925



Applications

Petrothene GA568189 exhibits an excellent balance of processability, stiffness, impact strength and ESCR. Typical applications include housewares, trash cans, medical items and closures.

Regulatory Status

GA568189 meets the requirements of the Food and Drug Administration regulation, 21 CFR 177.1520. This regulation allows the use of this olefin polymer in "...articles or components of articles intended for use in contact with food." Specific limitations or conditions of use may apply. Contact your Equistar Product Safety representative for more information.

Processing Techniques

Specific recommendations for processing GA568189 can only be made when the processing conditions, equipment and end use are known.

Suggested Start-up Conditions

| Extruder Zone | Rear | Center | Front | Nozzle |
|------------------------------|-----------|-----------|-----------|-----------|
| Cylinder Temperature °F (°C) | 350 (177) | 375 (190) | 400 (204) | 400 (204) |

Typical Properties

| Property | Nominal Value | Units | Test Method |
|---|---------------|-----------|-------------|
| Melt Index | 33 | g/10 min | ASTM D238 |
| Density | 0.925 | g/cc | ASTM D1505 |
| Spiral Flow ¹ | 15.8 (40.1) | in (cm) | Equistar |
| Tensile Strength @ Break ² | 1,200 (8) | psi (MPa) | ASTM D638 |
| Tensile Strength @ Yield ² | 2,100 (14) | psi (MPa) | ASTM D638 |
| Elongation @ Yield ² | 12 | % | ASTM D638 |
| 1% Secant Modulus ³ | 66,000 (460) | psi (MPa) | ASTM D790 |
| 2% Secant Modulus ³ | 57,000 (390) | psi (MPa) | ASTM D790 |
| Vicat Softening Point | 188 (87) | °F (°C) | ASTM D1525 |
| Hardness, Shore D | 58 | | ASTM D2240 |
| Heat Deflection Temperature, 66 psi | 115 (46) | °F (°C) | ASTM D648 |
| Low Temperature Brittleness, F ₅₀ ⁴ | < -105 (<-76) | °F (°C) | ASTM D746 |

¹ Measures the number on inches of flow produced when molten resin is injected into a long, spiral channel (0.625" insert), at a constant injection pressure of 1000 psi with a melt temperature of 440°F.

² Crosshead speed – 20 in/ min

³ Crosshead speed - ½ in/ min

⁴ Test method does not necessarily indicate the lowest temperature at which the material may be used.

