

Petrothene®

# GA 501

## Linear Low Density Polyethylene Film Extrusion Grade Melt Index 1.0 Density 0.918

### Applications

The PETROTHENE GA 501 series of resins is pelletized linear low density polyethylene for film extrusion applications that require excellent drawdown and toughness. These resins have excellent puncture resistance, elongation and heat seal strength. Applications include heavy duty shipping sacks, prime liners, commercial and industrial packaging, as well as food and consumer packaging.

### Processing Techniques

Recommended conditions are 400°-450°F melt temperature and a 1.5-3.0:1 blow-up ratio. Using proper techniques, these products can readily be drawn below 0.90 mil at optimum production rates. Specific recommendations for type of resin and extrusion conditions can be made only when the end use, required properties and processing equipment are known. For further suggestions, please contact your Equistar sales representative.

### Certification

The GA 501 series resins meet 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 GA 501 is available without additives or fully formulated with slip and antiblock additives.

| Property                                   | Value           | Units    | ASTM Test Method |
|--|-----------------|----------|------------------|
| Melt Index (190/2.16)                      | 1.0             | g/10 min | D 1238           |
| Density                                    | 0.918           | g/cc     | D 1505           |
| Vicat Softening Point                      | 107             | °C       | D 1525           |
| <b>Film</b>                                |                 |          |                  |
| Gauge                                      | 1.5             | mil      |                  |
| Blow-up Ratio                              | 2.5:1           |          |                  |
| Haze                                       | 20              | %        | D 1003           |
| Gloss, 45°                                 | 40              |          | D 523            |
| Dart Drop Impact Strength, F <sub>50</sub> | 100             | g        | D 1709/A         |
| Tensile Strength @ Break, MD (TD)          | 6,600 (4,700)   | psi      | D 882            |
| Elongation @ Break, MD (TD)                | 580 (725)       | %        | D 882            |
| 1% Secant Modulus, MD (TD)                 | 27,000 (28,000) | psi      | D 638            |
| Elmendorf Tear, MD (TD)                    | 125 (330)       | g        | D 1922           |

| Product   | GA 501-020 | GA 501-021 | GA 501-022 | GA 501-023 | GA 501-025 | GA 501-026 |
|-----------|------------|------------|------------|------------|------------|------------|
| Slip      | None       | None       | High       | Medium     | Very High  | Low        |
| Antiblock | None       | High       | High       | Medium     | High       | High       |

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