

Petrothene®
GA501
**Linear Low Density Polyethylene
Film Extrusion Grade**
Melt Index 1.0 Density 0.918
Applications

The PETROTHENE GA501 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.

**Regulatory
Status**

The GA501 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 GA501 is available without additives or fully formulated with slip and antiblock additives.

**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.

**Typical
Properties**

Property	Nominal 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
Film			
Gauge	1.0	mil	
Blow-up Ratio	2.5:1		
Haze	20	%	D 1003
Gloss, 45°	40		D 523
Dart Drop Impact Strength, F ₅₀	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	<u>GA501020</u>	<u>GA501021</u>	<u>GA501022</u>	<u>GA501023</u>	<u>GA501025</u>	<u>GA501026</u>
Slip	None	None	High	Medium	Very High	Low
Antiblock	None	High	High	Medium	High	High

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