

Petrothene®

GA601

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

Applications

The PETROTHENE GA601 series resins are pelletized linear low density polyethylenes for applications that require maximum strength and toughness. These products offer excellent additive homogeneity, require no transfer equipment modifications, and facilitate clean and safe handling. Applications include heavy duty shipping sacks, prime liners, commercial and industrial packaging, as well as food and consumer packaging. The GA601 series resins offer enhanced film strength, drawdown, toughness and heat seal strength. In addition, these resins have excellent low temperature resistance for applications such as stretch film and frozen food packaging. The GA601 series resins can be purchased without additives, fully formulated with slip and antiblock or containing a processing aid.

Regulatory Status

The GA601 series resins meet the requirements of the Food and Drug Administration 21 CFR 177.1520, Subpart C, Item 3.1. 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.

Processing Techniques

Recommended processing conditions for the GA601 series are a 400°-450°F melt temperature and a 1.5 to 3.0 blow-up ratio. Using proper techniques, these products can readily be drawn below 0.9 mils at optimum production rates. Specific recommendations for type of LLDPE resin and extrusion conditions can only be made when the end use, required properties and extrusion 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	105	°C	D 1525	
Film				
Gauge	1.0	mil		
Blow-up Ratio	2.5:1			
Haze	22	%	D 1003	
Gloss, 45°	35	units	D 2457	
Dart Drop Impact Strength, F ₅₀	190	g	D 1709/A	
Total Energy Dart Drop	1.8	ft-lbs	D 4272	
Tensile Strength @ Break MD (TD)	8,100 (6,100)	psi	D 882	
Elongation @ Break, MD (TD)	580 (700)	%	D 882	
1% Secant Modulus, MD (TD)	29,000 (32,500)	psi	D 882	
Elmendorf Tear, MD (TD)	325 (650)	g	D 1922	
Product	GA601030	GA601031	GA601032	GA601033
Slip	None	None	High	Medium
Antiblock	None	High	High	High

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