

Petrothene® Select

GS710

**Linear Low Density Polyethylene
Film Extrusion Grade**

Melt Index 1.0 Density 0.915

Applications

The PETROTHENE SELECT series of resins are pelletized, high performance hexene, linear low density polyethylenes for applications requiring superior strength and toughness. These products offer significant improvements in mechanical properties and excellent additive homogeneity without sacrificing processability compared to conventional Hexene LLDPE materials. GS710 exhibits superior processability compared to competitive High Performance Hexene LLDPE materials. Applications include trash and can liners, commercial and industrial packaging, as well as consumer packaging. The PETROTHENE SELECT series resins offer enhanced film strength, drawdown, toughness and heat seal strength.

Regulatory Status

PETROTHENE SELECT series resins meet the specifications of the Food and Drug Administration, regulation 21 CFR 177.1520, Subpart C, Item 3.1a. 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 SELECT series are a 400°- 450°F melt temperature and a 2.0 to 3.5 blow-up ratio. 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	1.0	g/10 min	D 1238
Density - Base Resin	0.915	g/cc	D 1505
Density - Pellet	0.924	g/cc	D 1505
Film¹			
Gauge	1.0	mil	
Blow-up Ratio	2.5:1		
Dart Drop Impact Strength ² , F ₅₀	600	g	D 1709/A
Tensile Strength @ Break MD (TD)	8,000 (6,000)	psi	D 882
Elongation @ Break, MD (TD)	580 (720)	%	D 882
1% Secant Modulus, MD (TD)	28,000 (29,000)	psi	D 882
Elmendorf Tear, MD (TD)	350 (580)	g	D 1922
Product	GS710060	GS710061	GS710062
Slip	0 ppm	0 ppm	1,350 ppm
Antiblock	0 ppm	12,000 ppm	12,000 ppm

¹ Films produced on a blown film line equipped with an 8" diameter die and 100 mil die gap, running at 150 lb/hr and 420°F melt temperature.

² Films aged 2-3 weeks after film fabrication and prior to testing. Indicated value is average, range is 600-1000 grams.

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