

Preliminary Data Sheet

Starflex

GM1810BE

Metallocene Linear Low Density Polyethylene

Film Extrusion Grade

Melt Index 1.0 Base Resin Density 0.918

Applications

Starflex GM1810BE is a pelletized mLLDPE resin for use in applications that require maximum strength and toughness. GM1810BE contains a processing aid, slip and antiblock.

Regulatory Status

GM1810BE meets the requirements of the Food and Drug Administration 21 CFR 177.1520. This regulation allows for, among other things, the use of this olefin polymer in "articles or components or articles intended for use in contact with food." Certain limitations or conditions of use may apply. Contact your Equistar sales representative for more information.

Processing Techniques

Recommended processing conditions for GM1810BE 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 mLLDPE resin and extrusion conditions can only be made when the end use, required properties and extrusion equipment are provided; however, Equistar recommends that users conduct performance testing on finished articles in order to make an independent determination that GM1810BE is suitable and safe for all intended uses and applications. For further information, please contact your Equistar sales representative.

Typical Properties

Resin	Nominal Value	Units	ASTM Test Method
Melt Index (190/2.16)	1.0	g/10 min	D 1238
Base Resin Density	0.918	g/cc	D 1505
Product Density	0.922	g/cc	D 1505
Film			
Gauge	0.75	mil	
Blow-up Ratio	2.5:1		
Haze	16	%	D 1003
Gloss, 45°	45	units	D 2457
Dart Drop Impact Strength, F ₅₀	600	g	D 1709/A
Tensile Strength @ Break MD (TD)	9,800 (8,600)	psi	D 882
Elongation @ Break, MD (TD)	470 (570)	%	D 882
1% Secant Modulus, MD (TD)	27,000 (28,000)	psi	D 882
Elmendorf Tear, MD (TD)	150 (260)	g	D 1922

The values listed for physical properties are nominal values only and are subject to normal variations consistent with the test methods and/or variations found acceptable to the industry.

Additives

Slip	1,000	ppm
Antiblock	5,000	ppm
Processing Aid	Yes	

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