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Technical Data Sheet

HF1810

Linear Low Density Polyethylene

lyondellbasell

Product Description

The HF1810 resin is a pelletized linear low density polyethylene selected by customers for applications that require maximum strength and toughness. This product offers excellent additive homogeneity, requires no transfer equipment modification, and facilitates clean and safe handling. Typical applications include heavy duty shipping sacks, trash can liners, commercial and industrial packaging, as well as food and consumer packaging. HF1810 offers enhanced film strength, drawdown, toughness and heat seal strength. In addition, this resin has excellent low temperature resistance for applications such as stretch film and frozen food packaging.

Regulatory Status

For regulatory compliance information, see HF1810 <u>Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS)</u>.

Status Commercial: Active

Availability Asia-Pacific; Europe; North America; South & Central America

Application Agriculture Film; Bags & Pouches; Can Liners; Film Wrap; Food Packaging Film;

Heavy Duty Packaging; Lamination Film; Liner Film; Retail Carryout Bags; Shrink Film

MarketFlexible Packaging; Rigid PackagingProcessing MethodBlown Film; Sheet and Profile Extrusion

Physical Melt Flow Rate, (190 °C/2.16 kg) 1.0 g/10 min 1.0 g/10 min ASTM D1238 Base Resin Density, (23 °C) 0.918 g/cm³ 0.918 g/cm³ ASTM D792 Product Density, (23 °C) 0.918 g/cm³ 0.918 g/cm³ ASTM D792 Film Dart Drop Impact Strength, F50 200 g 200 g ASTM D1709 Tensile Strength at Break MD 7540 psi 52 MPa ASTM D882 TD 6530 psi 45 MPa ASTM D882 Tensile Elongation at Break To % 710 % ASTM D882 TD 750 % 750 % ASTM D882 TD 750 % 750 % ASTM D882 TD 34800 psi 240 MPa ASTM D882 TD 42000 psi 290 MPa ASTM D882 Elmendorf Tear Strength MD 525 g 525 g ASTM D1922 TD 720 g 720 g ASTM D1922 Optical Haze 16 % ASTM D1003	Typical Properties	Nominal Value	English Units	Nominal		Test Method
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TD 720 g 720 g ASTM D1922 Optical Haze 16 % 16 % ASTM D1003	Elmendorf Tear Strength					
Optical 16 % 16 % ASTM D1003	MD	525	g	525	g	ASTM D1922
Haze 16 % 16 % ASTM D1003	TD	720	g	720	g	ASTM D1922
	Optical					
Gloss (45°) 41 % 41 % ASTM D2457	Haze	16	%	16	%	ASTM D1003
5.555, () 11 /0 11 /0 /10 /10 /10 /10 /10 /10 /10	Gloss, (45°)	41	%	41	%	ASTM D2457
Additive	Additive					
Slip None None LYB Method	Slip	None		None		LYB Method

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Antiblock None None LYB Method

Notes

Film sample used for testing was 1.0 mil gauge, 2.5:1 BUR.

These are typical property values not to be construed as specification limits.

Processing Techniques

Recommended processing conditions for this product are a melt temperature of 400 - 450 °F and a 1.5 to 3.0:1 blow-up ratio.

Using proper techniques, these products can readily be drawn below 0.90 mils at optimum production rates.

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.