

Alathon

L5005

High Density Polyethylene

HMW Film Grade

Melt Index 0.06 Density 0.949



Applications

Alathon L5005 is a high molecular weight high density copolymer that provides broad bimodal molecular weight distribution, high stiffness and good heat seal response and strength. L5005 is selected by customers for use in merchandise bags, grocery sacks, trash can liners, produce bags and roll stock.

Regulatory Status

L5005 meets the requirements of the Food and Drug Administration regulation 21 CFR 177.1520. This regulation allows the use of this olefin polymer in "...articles or components of articles intended for use in contact with food..." Specific limitations or conditions of use may apply. Contact your Equistar product safety representative for more information.

Processing Techniques

Specific recommendations for processing L5005 can only be made when the processing conditions, equipment and end use are known.

Typical Properties

Property	Nominal Value	Units	ASTM Test Method
Melt Index	0.06	g/10 min	D1238
Density	0.949	g/cc	D1505
Film Properties*			
Dart Drop Impact Strength, F ₅₀	340	g	D1709
Elmendorf Tear Strength, MD (TD)	11 (76)	g	D1922
Tensile Strength @ Yield, MD (TD)	5,000 (4,200)	psi	D882
Tensile Strength @ Break, MD (TD)	12,200 (8,300)	psi	D822
Elongation @ Break, MD (TD)	320 (390)	%	D882
Secant Modulus, MD (TD)	137,000 (152,000)	psi	D882

*Data Obtained Under the Following Extrusion Conditions:

Alpine 200 mm 3 Layer Die (40/35/25); 3 Extruders: 65 mm / 75 mm / 50 mm; Die Gap = 1.5 mm;
Film Thickness = 0.5 mil; 500 lbs/ hr; Internal Bubble Cooling; Neck Height = 8 x DD; Blow Up Ratio = 4:1

These are typical values and not to be construed as specifications limits.