Technical Data Sheet

Alathon L5906

High Molecular Weight High Density Polyethylene

Product Description

Alathon L5906 is a high molecular weight high density polyethylene homopolymer with a broad bimodal molecular weight distribution. This resin exhibits excellent stiffness, very high tensile strength, and low gels. L5906 is selected by customers for use in draw tapes and paper replacement applications as well as other mono- and multi-layer films requiring both stiffness and toughness.

Regulatory Status

For regulatory compliance information, see *Alathon* L5906 Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

Status	Commercial
Availability	North America
Application	Bags & Pouches; Can Liners; Retail Carryout Bags; Specialty Film
Market	Flexible Packaging
Processing Method	Blown Film

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	0.075	g/10 min	0.075	g/10 min	ASTM D1238
Density, (23 °C)	0.959	g/cm³	0.959	g/cm³	ASTM D1505
Film					
Dart Drop Impact Strength, F50	390	g	390	g	ASTM D1709
Tensile Strength at Break					
MD	12800	psi	88.3	MPa	ASTM D882
TD	10000	psi	68.9	MPa	ASTM D882
Tensile Strength at Yield					
MD	5800	psi	40.0	MPa	ASTM D882
TD	5200	psi	35.9	MPa	ASTM D882
Tensile Elongation at Break					
MD	340	%	340	%	ASTM D882
TD	340	%	340	%	ASTM D882
Secant Modulus					
MD	180000	psi	1240	MPa	ASTM D882
TD	189000	psi	1300	MPa	ASTM D882
Elmendorf Tear Strength					
MD	20	g	20	g	ASTM D1922
TD	60	g	60	g	ASTM D1922

Manufacturer website: https://www.lyondellbasell.com/en/

Notes

Film data obtained from sample produced on an Alpine 200 mm line equipped with a three layer die (40/35/25), three extruders (65 mm/75 mm/50 mm), internal bubble cooling, die gap of 1.5 mm, neck height of 8 x DD, blow up ratio of 4:1, film thickness of 0.8 mil and operating at 500 lbs/hr.

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

Processing Techniques

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

Company Information

For further information regarding the LyondellBasell company, please visit http://www.lyb.com/.

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