

Technical Data Sheet

Alathon L4903

High Molecular Weight High Density Polyethylene



Product Description

Alathon L4903 is a high molecular weight high density copolymer with broad bimodal molecular weight distribution. This resin exhibits excellent machine direction tear in an HMW-HD resin as well as low gel levels. Typical applications include trash can liners and products requiring incorporation of PCR.

Regulatory Status

For regulatory compliance information, see *Alathon* L4903 [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)	0.027	g/10 min	0.027	g/10 min	ASTM D1238
Density, (23 °C)	0.949	g/cm ³	0.949	g/cm ³	ASTM D1505
Film					
Dart Drop Impact Strength, F50	230	g	230	g	ASTM D1709
Tensile Strength at Break					
MD	11600	psi	80.0	MPa	ASTM D882
TD	7600	psi	52.4	MPa	ASTM D882
Tensile Strength at Yield					
MD	5400	psi	37.2	MPa	ASTM D882
TD	4100	psi	28.3	MPa	ASTM D882
Tensile Elongation at Break					
MD	330	%	330	%	ASTM D882
TD	410	%	410	%	ASTM D882
Secant Modulus					
MD	144000	psi	993	MPa	ASTM D882
TD	148000	psi	1020	MPa	ASTM D882
Elmendorf Tear Strength					
MD	10	g	10	g	ASTM D1922
TD	60	g	60	g	ASTM D1922

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

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