Technical Data Sheet

Alathon L5645

High Density Polyethylene

Product Description

Alathon L5645 is a medium molecular weight, high density polyethylene homopolymer for use in blown film applications. Typical applications include general-purpose HDPE film applications such as overwrap, laminating base films, food packaging, oriented tapes, and biaxially oriented polyethylene (BOPE) films.

Regulatory Status

For regulatory compliance information, see *Alathon* L5645 Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

Status	Commercial: Active
Availability	North America
Application	Agriculture Film; Bags & Pouches; Nets; Raffia/Tapes/Strapping; Secondary Packaging
Market	Flexible Packaging
Processing Method	Blown Film; BOPE; Tapes & Raffia
Attribute	General Purpose; Good Abrasion Resistance; Good Organoleptic Properties; High Density; High Stiffness; Low Gel

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	0.54	g/10 min	0.54	g/10 min	ASTM D1238
Density, (23 °C)	0.959	g/cm³	0.959	g/cm³	ASTM D1505
Film					
Tensile Strength at Break					
MD	7600	psi	52.4	MPa	ASTM D882
TD	3500	psi	24.1	MPa	ASTM D882
Tensile Strength at Yield					
MD	4000	psi	27.6	MPa	ASTM D882
TD	4600	psi	31.7	MPa	ASTM D882
Tensile Elongation at Break					
MD	550	%	550	%	ASTM D882
TD	500	%	500	%	ASTM D882
Secant Modulus					
MD	137000	psi	945	MPa	ASTM D882
TD	183000	psi	1260	MPa	ASTM D882
Elmendorf Tear Strength					
MD	31	g	31	g	ASTM D1922
TD	1700	g	1700	g	ASTM D1922

Notes

Data obtained from 2.0 mil film produced on a blown film line with a 60 mil die gap, 2.2:1 BUR, and 390-410 °F (199-210 °C) melt extrusion temperature.

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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