Technical Data Sheet

Alathon L4904LS

High Density Polyethylene

Product Description

Alathon L4904LS is a bimodal, high molecular weight, high density polyethylene resin with excellent processing characteristics, used for pipe extrusion. *Alathon* L4904LS is classified as PE100 and customers typically use L4904LS in applications requiring high resistance to pipe failure by rapid crack propagation and slow crack growth mechanisms.

Regulatory Status

For regulatory compliance information, see *Alathon* L4904LS Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

Status	Commercial
Availability	Africa-Middle East; Asia-Pacific
Application	Drinking Water Pipe; Sewer Pipe
Market	Industrial, Building & Construction
Processing Method	Pipe Extrusion

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate			
(190 °C/5.0 kg)	0.15	g/10 min	ISO 1133-1
(190 °C/21.6 kg)	7	g/10 min	ISO 1133-1
Density	0.949	g/cm³	ISO 1183-1
Mechanical			
Flexural Modulus, (1% Secant)	930	MPa	ISO 178
Tensile Modulus, (23 °C, 1 mm/min, Chord)	1010	MPa	ISO 527-1, -2
Tensile Stress at Break	30.7	MPa	ISO 527-1, -2
Tensile Stress at Yield	23	MPa	ISO 527-1, -2
Tensile Elongation at Break	>600	%	ISO 527-1, -2
Thermal			
Oxidation Induction Time, (210 °C)	>20	min	ISO 11357-6
Conformance Testing			
Minimum Required Strength, (20 °C)	10	MPa	ISO 12162
Resistance to Rapid Crack Propagation, Pc @ 0 °C	>12	bar	ISO 13477
Values were obtained on 4" SDR11 pipe made with L4904LS and an approved masterbatch.			
Resistance to Rapid Crack Propagation, Tc @ 5 bar	<-14	°C	ISO 13477
Values were obtained on 4" SDR11 pipe made with L4904LS and an approved masterbatch.			

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

Notes

Typical Property values were determined on natural L4904LS resin, unless otherwise noted. Conformance Test values were determined from L4904LS compounded with an approved black masterbatch.

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/.

© LyondellBasell Industries Holdings, B.V. 2018

Disclaimer

Information in this document is accurate to the best of our knowledge at the date of publication. The document is designed to provide users general information for safe handling, use, processing, storage, transportation, disposal and release and does not constitute any warranty or quality specification, either express or implied, including any warranty of merchantability or fitness for any particular purpose. Users shall determine whether the product is suitable for their use and can be used safely and legally.

In addition to any prohibitions of use specifically noted in this document, LyondellBasell may further prohibit or restrict the sale of its products into certain applications. For further information, please contact a LyondellBasell representative.

Trademarks

The Trademark referenced within the product name is owned or used by the LyondellBasell family of companies.