

# LS Thin Film

## Film Highlights

**Type of material.**

Exceptionally tough, multilayered polyolefin.

**Appearance.**

Excellent optics and clarity with high sparkle and gloss.

**Machinability.**

Excellent performance on high-speed automatic equipment.

**Toughness.**

High degree of durability and tensile strength provides optimum product protection during shipping and handling.

**Forms available.**

Singlewound (SW) 4" - 65" in 1/4" increments.

**A thin, multilayer shrink film with exceptional clarity designed for high speed applications.**

Cryovac® LS Thin Film is designed specifically for high-speed applications where quick and consistent sealing are required. This breakthrough film provides unmatched value as the industry's first high speed singlewound Thin Film, perfect for today's high speed application requirements.

LS Thin Film offers excellent slip characteristics and superior shrink properties to provide distortion-free contour hugging packages. Its superior optics provide an outstanding "showcase" appearance giving products a merchandising advantage.

The short dwell time provided by LS Thin Film allows optimum performance from high speed automatic Form/Fill/Seal equipment. Its higher modulus provides unmatched machinability and lap seal performance even at top equipment speeds. The polyolefin construction of LS Thin Film allows for clean and consistent trim sealing without disagreeable fumes or smoke.

LS Thin Film is stable at extremes of heat or cold, making it the optimum choice for a variety of demanding applications. Stored at room temperature, it does not shrink or distort on the roll.

Applications for LS Thin Film include a wide range of products including video cassettes, DVD's, CD's paper goods, printed materials, dairy products, pharmaceuticals and more.

# PROPERTIES

	ASTM Test Method	Typical Values
<b>Gauge</b>		45
<b>Minimum Use Temperature</b>		-40°F.
<b>Maximum Storage Temperature</b> (two years maximum)		90°F.
<b>Shrink Air Temperature</b>		250°-350°F.
<b>Density @ 23°C. (g/cc)</b>	D-1505	0.912
<b>Clarity (%)</b>	D-1746	88.0
<b>Gloss (%)</b>	D-2457	92.3
<b>Haze (%)</b>	D-1003	2.3
<b>Instrumented Impact Strength (lb.)</b>	D-3763	9
<b>Coefficient of Friction (Film-to-Film)</b>	D-1894	
Static		0.31
Kinetic		0.28
<b>Water Vapor Transmission Rate</b> (gms/100 sq. in./24 hrs.)	F-1249	1.59
<b>Oxygen Transmission Rate</b> cc/m <sup>2</sup> /24 hrs. (73°F., 1 atm)	D-3985	8,551
<b>Yield (sq. in. per pound)</b>		67,500

		LD*	TD**
<b>Tensile Strength (psi)</b>	D-882	15,000	15,000
<b>Elongation at Break (%)</b>	D-882	97	91
<b>Modulus of Elasticity (psi @ 73°F.)</b>	D-882 Method A	108,000	112,600
<b>Tear Propagation (gms)</b>	D-1938	3.7	7.3
<b>Unrestrained Shrink (%) @ 200°F</b>	D-2732	10	18
<b>220°F</b>		18	28
<b>240°F</b>		35	46
<b>260°F</b>		48	56

Note: These are typical values for Cryovac films. They are not intended for use as limiting specifications.  
\* Longitudinal Direction \*\* Transverse Direction

This information represents our best judgment based on the work done, but the Company assumes no liability whatsoever in connection with the use of information or findings contained herein.

LS Thin Film complies with the requirements of the Federal Food, Drug and Cosmetics Act, as amended, for the packaging of all foods, with the exception of high alcoholic substances, at temperatures of 65°C. and below.

 **CRYOVAC**  
Sealed Air Corporation

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