

Technical Data

Lube-Lok[®] 99A

MoS₂/Graphite, Solid Film Lubricant

**CURTISS -
WRIGHT**

Everlube[®] Products

Surface Technologies Division

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Product Description

Lube-Lok 99A is a thermally cured, MoS₂/Graphite based solid film lubricant which utilizes an epoxy binder system. This coating was specially formulated for use with aluminum and other light metal applications, which require curing less than 250° F. The low curing coating offers excellent flexibility of heat sensitive substrates.

Features / Benefits

- Good wear resistance
- Good chemical resistance
- Low coefficient of friction
- Ideal for higher load carrying applications

Markets

- Industrial Machinery
- Fasteners
- Fabricated Metal Parts
- Mechanical Components

Typical Applications

- Linkages, springs and coils
- Guide, rails and tracks
- Bearing, cams, gears and splines
- Rings and seals

Physical Properties

Lubricating Solids:	MoS ₂ / graphite
Binder:	High molecular weight epoxy
Color and Appearance:*	Matte gray finish
Carrier:	Solvent borne
Solids (by weight):*	42% to 46%
Density:*	10.1 ± 0.5 lb/gal (1210 ± 60 grams/liter)
Flash Point:	24°F (-4°C)
Volatile Organic Compound:	622 grams/liter (5.19 lb/gal)
Theoretical Coverage: ¹	417 ft ² /gal @ 0.5 mils (10.2 m ² /liter @ 12.7 microns)

Processing Information

Dry Film Thickness	0.2 to 0.5 mils (5 to 13 microns)
Dilution/Cleanup Solvent ² :	MEK or 642 Solvent
Dilution Ratio: (for spray)	1:2 to 1:3 (product to solvent by volume) adjust as needed
Cure Cycle ² :	Air dry for 5 min. then thermally cure to 1 hr @ 200°F to 250°F
Suggested Pretreatment:	Grit blast and/or phosphate
Suggested application Methods:	Dip, dip/spin, or spray

For additional information, please see Processing Bulletin #3000-A

Typical Functional Properties

	<u>ASTM Test Method</u>	<u>Value</u>
Corrosion Resistance		
Test Panel	ASTM B-117	<48 hrs. @ 5% neutral salt spray
Test Panel Coating Method		0.5 mil on grit blasted steel panel
Abrasion Resistance	ASTM D-4060	Fair
Coefficient of Friction	ASTM D-2714	.04 to .06
Operating Temperature Range		-100°F to 250°F (-73°C to 121°C)
Load Carrying Capacity	ASTM 2625, Method B	<20,000 psi
Wear Life	ASTM 2625, Method A	>60 minutes

Chemical Resistance (ASTM D-2510, Method C)

Isopropyl Alcohol or Ethyl Alcohol	Pass	Diethanolamine	Pass
Mineral Spirits or Paint Thinner	Pass	Hydrochloric Acid (10%)	Pass
Toluene	N/R	Sodium Hydroxide (10%)	Pass
Acetone	N/R	Distilled Water	Pass
Skydrol 500 (room temperature)	Pass	Jet Fuels (JP-4)	Pass
Hydraulic Fluids	Pass	Trichloroethylene	N/R
Anti-Icing Fluids	Pass	Std. Test Fluids (TT-S-735, TyII) ³	Pass
Hydraulic Fluid, Petroleum (MIL-H-5605) ³	Pass	Oil, Aircraft Turbine Engine (Mil-L-23699)	Pass
Dioxane ³	N/R	Xylene ³	N/R
Liquid Oxygen ³	N/R		

Note: Chemical resistance may vary depending on the cure cycle. N/R = not recommended

Additional InformationShelf Life and Storage:

One year from date of shipment, stored in a factory sealed container between the temperatures of 40°F to 100°F. Coatings are thermally stable, but we do not recommend prolonged exposure outside of the specified temperature range listed above

Packaging: Lube-Lok 99A is available in gallon, 5-gallon pail, and quart

Warranty:

No representation or warranty is expressed or implied and all warranties including warranties of marketability and fitness for use are expressly disclaimed. Nothing herein shall be construed as permission or recommendation to practice a patented invention without a license.

* These tests are performed on each production lot

¹ Based on 100% transfer efficiency at a dry film thickness of 0.0005 inch (12.5 microns).

² Contact Technical Services for additional options.

³ Specific chemical tested per the specification requirements.

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