

## Technical Data

# Everlube<sup>®</sup> 9001

Water Based, MoS<sub>2</sub>/  
Graphite Solid Film Lubricant

**CURTISS -  
WRIGHT**

Everlube<sup>®</sup> Products

Surface Technologies Division

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### Product Description

Everlube 9001 is a thermally cured, low VOC MoS<sub>2</sub>/Graphite based solid film lubricant with a high molecular weight epoxy binder system. This coating provides excellent abrasion resistance, very good chemical resistance, good wear life, and performs best in higher load carrying applications. Everlube 9001 is approved/qualified to many aerospace and industrial specification; these listings can be verified at <http://www.everlubeproducts.com/specification.php>. When requesting pricing or ordering of product, listing of the specification and revision is required to assure product certification compliance

### Features / Benefits

- Excellent abrasion resistance
- Very good chemical resistance
- Good wear life
- Ideal for higher load carrying applications

### Markets

- Aerospace/Defense
- Medical
- Industrial Machinery & Equipment
- Mechanical Components

### Typical Applications

- Virtually all fasteners
- Bearing and cams
- Gears and splines
- Engine ring seals

### Physical Properties

Lubricating Solids:	MoS <sub>2</sub> , Graphite
Binder:	High Molecular Weight Epoxy
Color and Appearance:*	Gray/Black Matte Finish
Carrier:	Water based
Solids (by weight):*	33% to 39%
Density:*	10 ± 0.5 lb/gal (1198 ± 60 grams/liter)
Flash Point:	>200°F (93°C)
Volatile Organic Compound:	175 grams/liter (1.46 lb/gal)
Theoretical Coverage: <sup>1</sup>	764 ft <sup>2</sup> /gal @ 0.5 mils (18.7 m <sup>2</sup> /liter @ 12.7 microns)
Alternative or Repair Coatings:	Solvent based equivalents for Everlube 9001 are our Everlube 620, Everlube 730 and Lube Lok 5396. For touch-up applications, Lubri-Bond A works well with Everlube 9001

### Processing Information

Dry Film Thickness	0.2 to 0.5 mils (5 to 13 microns)
Dilution/Cleanup Solvent:	May be thinned with Deionized Water less than 10% by volume.
Dilution Ratio:	0 to 9:1 (Product to Solvent)
Cure Cycle:	1 hr. @ 375°F +/- 25°F
Suggested Pretreatment:	Grit blast/or phosphate
Suggested application Methods:	Dip spin / spray

For additional information, please see Processing Bulletin #3001A

**Typical Functional Properties**

	<u>ASTM Test Method</u>	<u>Value</u>
Corrosion Resistance		
Test Panel	ASTM B-117	< 100 hrs. @ 5% Neutral Salt Spray
Test Panel Coating Method		0.8 mil on grit blasted steel panel
Abrasion Resistance	ASTM D-4060	Excellent
Coefficient of Friction	ASTM D-2714	0.02 to 0.04
Operating Temperature Range		-100° to 400°F (-73° to 204°C)
Load Carrying Capacity	ASTM 2625, method B	<100,000 psi
Wear Life	ASTM 2625, Method A	120 minutes average

**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	Pass	Sodium Hydroxide (10%)	Pass
Acetone	Pass	Distilled Water	Pass
Skydrol 500	Pass	Jet Fuels (JP-4)	Pass
Hydraulic Fluids	Pass	Trichloroethylene	Pass
Anti-Icing Fluids	Pass	Cleaning Compound, MIL-C-372	Pass
Freon TF, MIL-C-81302	Pass	Reagent, H <sub>2</sub> O	Pass
Sea Water	Pass	Synthetic Hydraulic Fluids, MIL-H-83282	Pass
Synthetic Lube Oil, MIL-L-23699	Pass	Silicone Damping Fluid, VV-D-1078	Pass
Lubricating Oil, MIL-L-14107	Pass	Lubricating Oil, MIL-L-46000	Pass
Lubricant/Cleaner, MIL-L-63460	Pass	Synthetic Turbine Lube Oil, Mil-L-7808	Pass

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

**Additional Information**Shelf Life and Storage:

One year from date of shipment, stored in a factory sealed container between the temperatures, 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: Everlube 9001 is available is 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

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

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