

Everlube® Products

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TECHNICAL DATA

PEV620

EVERLUBE® 620 Medical & Mil Spec, MoS₂/Graphite Solid Film Lubricant

Product Description

Everlube 620 is a molybdenum disulfide and graphite based solid film lubricant in a thermally cured organic binder system. Everlube 620 provides superior wear reduction, extremely high load-carrying capacity, a low coefficient of friction and prevents both galling and seizing. Everlube 620 is also qualified to MIL-L25504**, and BMS 3-8. Everlube 620 is purchased by a wide variety of markets, including Aerospace and Medical.

Features / Benefits

- Ideal for higher load carrying applications
- Very good chemical resistance
- Excellent coefficient of friction, good wear life
- Suitable for Medical ISO 10993 bio-compatibility testing

Typical Applications

- Virtually all fasteners
- Surgical Instruments
- Dampers, tubes and tracks
- Threaded connectors and disconnects

Markets

- Aerospace/Defense
- Medical
- Mechanical Components
- Fasteners

Physical Properties

Lubricating Solid:	MoS ₂ , Graphite
Binder:	High Molecular Weight Phenolic
Color and Appearance:*	Gray/Black Matte Finish
Carrier:	Solvent Borne
Solids (by weight):*	35 to 39%
Density:*	9.2 ± 0.5 lb/gal (1102 ± 60 grams/liter)
Flash Point:	38°F (3°C)
Volatile Organic Compound:	695 grams/liter (5.8 lb/gal)
Theoretical Coverage: ¹	545 ft ² /gal @ 0.5 mils (13.3 m ² /liter @ 12.7 microns)
Alternative or Repair Coatings:	A low VOC alternative coatings for Everlube 620 is our Everlube 9001. For touch-up applications, Lubri-Bond A works well with Everlube 620.

Processing Information²

Dry Film Thickness	0.2 to 0.7 mils (5 to 18 microns)
Dilution / Cleanup Solvent: ²	600 Solvent or 50/50 ethyl alcohol and toluene
Dilution Ratio:	1:1 to 1:3 (Product to Solvent)
Cure Cycle: ²	1 hr@300°F to 375°F
Suggested Pretreatment:	Grit Blast and/or Phosphate
Suggested Application Methods:	Dip Spin / 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 B117	<100 hrs. @ 5% Neutral Salt Spray
Test Panel coating Method		0.8 mil on grit blasted steel panel
Abrasion Resistance	ASTM D4060	Good
Coefficient of Friction	ASTM D2714	0.04 to 0.06
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
Film Adhesion *	ASTM D2510, Method A	Pass
Aluminum Corrosion Test*	ASTM D2649	Pass 500 hours

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	Std Test Fluids, TT-S-735, Ty II ³	Pass
Aviation Gasoline, MIL-G-5572, Grade 115/145 ³	Pass	Hydraulic Fluids, Petroleum, Mil-H-5606	Pass
Aircraft Piston Engin Oil, Mil-L-22851 ³	Pass	Aircraft Turbine Engine Oil, Mil-L-23699 ³	Pass
Non-Petroleum Hydraulic Fluid, Mil-H-8446 ³	Pass	Silicone Base Damping Fluids, W-D-1078	Pass

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

Shelf Life and Storage One year from date of shipment, stored in a factory sealed container between the and temperatures, 40° to 90°F. Coatings are thermally stable, but we do not recommend prolonged exposure outside of the specified temperature range listed above.

Packaging: Everlube 620 is available in Gallon, 5-Gallon Pail, 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 Test are performed on each production lot.

** Contact Everlube Products for any certification fee

¹ Based on 100% transfer efficiency at a dry film thickness of 0.001 inch (25microns).

² Contact Technical Services for additional options.

³ Specific chemical tested per the specification requirements.

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