

Technical Data

Everlube[®] 620C

Mil Spec MoS₂ Solid Film Lubricant

**CURTISS -
WRIGHT**

Everlube[®] Products

Surface Technologies Division

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Product Description

Everlube 620C is a thermally cured MoS₂ based solid film lubricant with an organic binder system. Everlube 620C provides very good wear life, good abrasion resistance and performs best in higher load carrying applications. Everlube 620C is approved/qualified to many aerospace and industrial specification; these listings can be verified at <http://www.everlubeproducts.com/specifications.php>. When requesting pricing or ordering of product, listing of the specification and revision is required to assure product certification compliance.

Features / Benefits

- Lead Free, RoHS & REACH Compliant
- Good abrasion resistance
- Very good wear life and chemical resistance
- Ideal for higher load carrying applications

Markets

- Aerospace/Defense
- Medical
- Mechanical components
- Industrial machinery & Equipment

Typical Applications

- Bearings, gears, splines and cams
- Non-intrusive medical instruments
- Hydraulic fittings & valve components
- Seals, clamps and couplings

Physical Properties

Lubricating Solids:	MoS ₂
Binder:	High molecular weight phenolic
Color and Appearance:*	Gray/black matte finish
Carrier:	Solvent borne
Solids (by weight):*	40% to 44%
Density:*	9.1 ± 0.5 lb/gal (1090 ± 60 grams/liter)
Flash Point:	16°F (-8.9°C)
Volatile Organic Compound:	632 grams/liter (5.27 lb/gal)
Theoretical Coverage: ¹	674 ft ² /gal@0.5 mils (16.5 m ² /liter @ 12.7 microns)
Alternative or Repair Coatings:	A low VOC alternative coating for Everlube 620C is our Everlube 9002. For touch-up applications, Perma-Slik GLF works well with Everlube 620C.

Processing Information²

Dry Film Thickness	0.2 to 0.5 mils (5 to 13 microns)
Dilution/Cleanup Solvent:	MEK, 600 Solvent, 1213 Solvent, or 50/50 (by vol.) Ethyl Alcohol and Toluene (pre-blended)
Dilution Ratio for Spray:	1:3 (product to solvent by volume) adjust as needed
Cure Cycle:	1 hr. @ 302°F ± 27°F (150°C ± 15°C)
Suggested Pretreatment:	Grit blast and/or phosphate
Suggested application Methods:	Dip spin, spray, brush

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

(Continued)

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		0.5 mil on grit blasted steel panel
Abrasion Resistance	ASTM D-4060	Good
Coefficient of Friction	ASTM D-2714	0.04 to 0.06
Operating Temperature Range		-100°F to 300°F (-73°C to 149°C)
Load Carrying Capacity*	ASTM 2625, Method B	>250,000 psi
Wear Life*	ASTM 2625, Method A	>250 minutes
Aluminum Corrosion Resistance	ASTM D2649	1000 Hours
Film Adhesion	ASTM D2510, Method A	Pass
Thermal Stability	ASTM D2511	Pass

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	Aviation Gasoline (Mil-G-5572, Grade 11)	Pass
Damping Fluids, Silicone Based (VV-D-1078)	Pass	Hydraulic Fluid, Nonpetroleum	Pass
Oil, Aircraft Turbine Engine, (MIL-L-23699)	Pass	Oil, Aircraft Piston Engine	Pass
Hydraulic Fluid, Petroleum (MIL-L-5606)	Pass	Methyl Ethyl Ketone (MEK)	Pass

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, 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 620C is available in gallon, 5-gallon pail, and quart

Warranty:

No representation of 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).

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