Technical Data

Everlube® 620A

MoS_2 Solid Film Lubricant

Everlube® Products
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Product Description

Everlube 620A is a thermally cured MoS2 based solid film lubricant which utilizes a high molecular weight phenolic binder system. This coating provides excellent chemical resistance, good abrasion and corrosion resistance. This coating is recommended for aluminum alloys, magnesium alloys and any base substrate which cannot withstand curing temperatures above 300° F.

Features / Benefits

- Very good wear life and abrasion resistance
- Very good chemical resistance
- RoHS Compliant
- Ideal for higher load carrying applications

Markets	Typical Applications
• Aerospace/Defense	• Threaded Connectors and disconnects
• Industrial Machinery	• Rollers, brackets, and disc plates
• Mechanical Components	• Gears, splines and cams
• Chemical Processing	• Spherical, sleeves bearings

Physical Properties

Lubricating Solids:	MoS_2
Binder:	High molecular weight phenolic
Color and Appearance:*	Matte gray/black finish
Carrier:	Solvent borne
Solids (by weight):*	28% to 32%
Density:*	8.3 ± 0.5 lb/gal (995 ± 60 grams/liter)
Flash Point:	24°F (-4°C)
Volatile Organic Compound:	697 grams/liter (5.81 lb/gal)
Theoretical Coverage:[1]	426 ft^2/gal@ 0.5 mils (10.4 m^2/liter @ 12.7 microns)
Alternative or Repair Coatings:	N/A

Processing Information

Dry Film Thickness	0.3 to 0.7 mils (8 to 18 microns)
Dilution/Cleanup Solvent:	MEK, or 50% Ethyl Alcohol and 50% Toluene (pre-blended)
Dilution Ratio for Spray:	1:3 (product to solvent by volume) adjust as needed
Cure Cycle (recommended):	1 hr. @ 300°F ± 25°F
(optional cure):	1 hr. @ 275°F ± 15°F (see note 2)
Suggested Pretreatment:	Grit blast and/or phosphate
Suggested application Methods:	Dip spin, spray, brush

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

(Continued)

Typical Functional Properties

	ASTM Test Method	Value
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	.04 to.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	>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	Pass	Sodium Hydroxide (10%)	Pass
Acetone	Pass	Distilled Water	Pass
Skydrol 500	N/R	Jet Fuels (JP-4)	Pass
Hydraulic Fluids	Pass	Trichloroethylene	Pass
Anti-Icing Fluids	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 620A 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
[1] Based on 100% transfer efficiency at a dry film thickness of 0.0005 inch (12.5 microns).
[2] When using the optional cure, the functional properties of Everlube 620A may vary. It is the customer's responsibility to verify coating meets their requirements.

Issue Date: 6/28/06 Rev. 6/25/13
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