Technical Data

Everlube® 731

MoS_2 Commercial Grade Solid Film Lubricant

Everlube® Products
Surface Technologies Division
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Product Description

Everlube 731 is a commercial grade, thermally cured, MoS_2 based solid film lubricant with an organic binder system. This coating provides very good chemical resistance, wear life, good abrasion resistance and performs best in higher load carrying applications.

Features / Benefits

- Very good wear life
- Very good chemical resistance
- Good abrasion resistance
- Lead Free

Markets

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

Typical Applications

- Virtually all fasteners
- Gears and splines
- Bearings and cams
- Hydraulic fittings

Physical Properties

Lubricating Solids	MoS_2
Binder	Organic
Color and Appearance*	Gray/Black Matte Finish
Carrier	Solvent based
Solids (by weight)*	40% to 44%
Density*	9.1 ± 0.5 lb/gal (1090 ± 60 grams/liter)
Flash Point	44°F (7°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 731 is our Everlube 9002. For touch-up applications, Perma-Slik G or Lubri-Bond 220 works well with Everlube 731.

Processing Information

Dry Film Thickness	0.2 to 1 mils (5 to 25 microns)
Dilution / Cleanup Solvent	600 Solvent or 50/50 ethyl alcohol and toluene
Dilution Ration (for spray)	1:3 (product to solvent by volume) Adjust as needed.
Cure Cycle	1 hr@300°F
Suggested Pretreatment	Grit Blast and/or Phosphate
Suggested Application Method	Spray, Dip Spin

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

(Continued)

Typical Functional Properties

	ASTM Test Method	Value
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 300°F (-73 to 149°C)
Load Carrying Capacity	ASTM 2625, Method B	>250,000 psi
Wear Life	ASTM 2625, Method A	>250 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 (room temperature)	Pass	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 731 is available in gallons, 5-gallon pails, and quarts

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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