

Technical Data



Everlube® Products

Surface Technologies Division

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Lubri-Bond® 320R

Air Dry PTFE, Solid Film Lubricant

Product Description

Lubri-Bond 320R is an air drying, PTFE based solid film lubricant with an epoxy binder system. This coating provides very good corrosion resistance and performs best in lighter load carrying applications. Lubri-Bond 320R is ideal for applications that do not require a thermally cured coating and is an touch-up lubricant. Lubri-Bond 320R is purchased by a wide variety of markets, including Medical and Semiconductors.

Features / Benefits

- Very good corrosion resistance
- Fair chemical resistance
- Suitable for Medical ISO 10993 bio-compatibility testing
- Ideal for field applications

Markets

- Semiconductor
- Fabricated Metal Parts
- Chemical Processing
- Medical

Typical Applications

- Pump and valve components
- Control valve bushings
- Springs and coils
- Surgical devices

Physical Properties

Lubricating Solids	PTFE
Binder	Epoxy
Color and Appearance*	Gray/Black Matte Finish, additional color options are available
Carrier	Solvent based
Solids (by weight)*	16 to 20%
Density*	7.5 ± 0.5 lb/gal (899 ± 60 grams/liter)
Flash Point	26°F (-3°C)
Volatile Organic Compound	720 grams/liter (6 lb/gal)
Theoretical Coverage ¹	576 ft ² /gal @ 0.5 mils (14.1 m ² /liter @ 12.7 microns)
Alternative or Repair Coatings	Thermally cured solvent based equivalents for Lubri-Bond 320R are Everlube 6108 or Everlube 721 or Everlube 6180 for Medical. A water based equivalent is Everlube 9500.

Processing Information

Dry Film Thickness	0.5 to 2 mil (13 to 51 microns)
Dilution / Cleanup Solvent	MEK
Dilution Ratio	0 to 1:1 (Product to Solvent)
Cure Cycle	24 hr. @ 77°F +/- 10°F
Suggested Pretreatment	Grit blast and/or phosphate
Suggested Application Method	Spray/dip spin

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 B117	>240 hrs @ 5% neutral salt spray
Test Panel Coating Method		0.8 mil on grit blasted steel panel
Abrasion Resistance	ASTM D4060	Fair
Coefficient of Friction	ASTM D2714	0.06 to 0.08
Operating Temperature Range		-100°F to 250°F (-73 to 121°C)
Load Carrying Capacity	ASTM D2714	<20,000 psi
Wear Life	ASTM D2714	40,000 cycles

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	N/R
Anti-Icing fluids	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:

Lubri-Bond 320R is available in gallon, 5-gallon pail, gallon, 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 (12.7 microns).

Issue Date: 08/20/02, Latest Revision Date: 10/16/03