

## Technical Data

**CURTISS -  
WRIGHT**

# Everlube® 6180

## PTFE, Solid Film Lubricant

**Everlube® Products**

Surface Technologies Division

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### Product Description

Everlube 6180 is a thermally-cured, resin-bonded, fluorocarbon coating that contains no heavy metals or toxic substances. It is highly suited for bio-compatibility testing and Medical use. This coating provides good fluid resistance, a very low coefficient of friction and excellent wear resistance properties. Everlube 6180 can be applied to both corrosion resistant and non-corrosion resistant base materials. Everlube 6180 is purchased by a wide variety of markets, ranging from Medical to Industrial.

### Features / Benefits

- Very good corrosion resistance
- Mar, chip and crack resistant
- Suitable for Medical ISO 10993 bio-compatibility testing
- Resistant to chipping and cracking

### Markets

- Medical
- Mechanical Components
- Industrial Machinery
- Fabricated Metal Parts

### Typical Applications

- Surgical devices, tubes, shafts, housing
- Bearings, springs, gears, and cams
- Slides, guides, and rails
- Hydraulic and pneumatic components

### Physical Properties

Lubricating Solids:	PTFE
Binder:	High Molecular Weight Phenolic
Color and Appearance:*	Black Finish
Carrier:	Solvent Borne
Solids (by weight):*	34% to 38%
Density:*	8.4 ± 0.5 lb/gal (1006 ± 60 grams/liter)
Flash Point:	24°F (-4°C)
Volatile Organic Compound:	648 grams/liter (5.4 lb/gal)
Theoretical Coverage: <sup>1</sup>	632 ft <sup>2</sup> /gal @ 0.5 mils (15.4 m <sup>2</sup> /liter @ 12.7 microns)
Alternative or Repair Coatings:	A low VOC alternative coating for Everlube 6180 is our Everlube 9500

### Processing Information

Dry Film Thickness	0.2 to 1.5 mils (5 to 38 microns)
Dilution/Cleanup Solvent:	MEK
Dilution Ratio:	1:1 to 1:3 (Product to Solvent)
Cure Cycle:	1 hr. @ 300° F +/- 25° F
Suggested Pretreatment:	Grit blast and/or phosphate
Suggested application Methods:	Dip spin, or 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 B-117	< 750 hrs. @ 5% Neutral Salt Spray
Test Panel Coating Method		0.5 mil on grit blasted steel panel
Abrasion Resistance	ASTM D-4060	Fair
Coefficient of Friction	ASTM D-2714	0.04 - 0.06
Operating Temperature Range		-100° to 300°F (-73° to 149°C)
Load Carrying Capacity	ASTM D-2714	<10,000 psi
Wear Life	ASTM D-2714A	> 40,000 cycles
Adhesion	D-2510	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, Mil-H-5606	Pass	Trichloroethylene	Pass
Anti-Icing Fluids	Pass	Standard Test Fluid, TT-S-735 Type III	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 6180 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

<sup>1</sup> Based on 100% transfer efficiency at a dry film thickness of 0.0005 inch (12.5 microns).

Issue Date: 05/05/03, Latest Revision Date: 10/16/03