

## Technical Data

### Kal-Gard® Gunkote Protective Coatings

**CURTISS -  
WRIGHT**

**Everlube® Products**

Surface Technologies Division

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#### Product Description

Kal-Gard Gunkote is a thermally cured, MoS<sub>2</sub> containing coating with a high molecular weight phenolic binder system. Kal-Gard Gunkote provides a reduced coefficient of friction along with good corrosion resistance. The coating provides an ideal protective finish for small arms manufacturers.

#### Features / Benefits

- Decorative Finish
- Good corrosion resistance
- Good chip resistance
- Good abrasion resistance

#### Markets

- Consumer Products
- Mechanical Components
- Fabricated Metal Parts
- Automotive

#### Typical Applications

- Small arms
- Sporting equipment
- After-market automotive parts
- custom armaments

#### Physical Properties

Lubricating Solids:	MoS <sub>2</sub>
Binder:	High Molecular Weight Phenolic
Color and Appearance:*	Black Finish
Carrier:	Solvent based
Solids (by weight):*	29% to 33%
Density:*	8.1 ± 0.5 lb/gal (971 ± 60 grams/liter)
Flash Point:	45°F (7°C)
Volatile Organic Compound:	639 grams/liter (5.33 lb/gal)
Theoretical Coverage: <sup>1</sup>	640 ft <sup>2</sup> /gal@0.5 mils (15.6 m <sup>2</sup> /liter @ 12.7 microns
Alternative or Repair Coatings:	n/a

#### Processing Information<sup>2</sup>

Dry Film Thickness	0.3 to 1 mils (8 to 25 microns)
Dilution/Cleanup Solvent:	Al Solvent, MEK
Dilution Ratio:	1:1 to 1:3 (Product:Solvent) by volume
Cure Cycle:	1 hr. @ 300° F
Suggested Pretreatment:	Grit Blast and/or Phosphate
Suggested application Methods:	spray / dip spray

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

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<b>Typical Functional Properties</b>			
	<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		Very good
Coefficient of Friction	ASTM D-2714		0.1 to 0.2
Operating Temperature Range			-100°F to 300°F (-73°C to 149°C)
Load Carrying Capacity	N/A		N/A
Wear Life	N/A		N/A
<b>Chemical Resistance (ASTM D-2510, Method C)</b>			
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			
<b>Additional Information</b>			
<u>Shelf Life and Storage:</u> 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.			
<u>Packaging:</u> Kal-Gard® Gunkote is available in Gallons and Quarts			
<u>Warranty:</u> 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 (25 microns).

Issue Date: 03/14/03, Latest Revision Date: 10/16/03