

Technical Data

Everlube® Products

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Kal-Gard® 7300

MoS₂, Solid Film Lubricant

Product Description

Kal-Gard 7300 is a thermally cured, MoS₂ based solid film lubricant with a high molecular weight phenolic binder system. This coating provides excellent chemical resistance, and performs best in higher load carrying applications. Kal-Gard is purchased by a wide variety of markets, ranging from Automotive to Medical.

Features / Benefits

- Good adhesion
- Excellent chemical resistance
- Suitable for Medical ISO 10993 bio-compatibility testing
- Low coefficient of friction

Markets

- Mechanical Components
- Medical
- Fabricated Metal Parts
- Aerospace/Defense

Typical Applications

- Bearings, cams, splines and shafts
- Surgical instruments
- Threaded connectors and disconnects
- Bushings, shafts, splines and cams

Physical Properties

Lubricating Solid:	MoS ₂
Binder:	High Molecular Weight Phenolic
Color and Appearance:*	Black gloss finish
Carrier:	Solvent Borne
Solids (by weight):*	31% to 35%
Density:*	8.1 ± 0.5 lb/gal (971 ± 60 grams/liter)
Flash Point:	50°F (10°C)
Volatile Organic Compound:	651 grams/liter (5.43 lb/gal)
Theoretical Coverage: ¹	767 ft ² /gal @ 0.5 mils (18.7 m ² /liter @ 12.7 microns)
Alternative or Repair Coatings:	N/A

Processing Information²

Dry Film Thickness	0.2 to 1 mils (5 to 25 microns)
Dilution / Cleanup Solvent: ²	MEK, Anhydrous Ethanol
Dilution Ratio:	3:1 (Solvent to Product)
Cure Cycle: ²	1 hr. @ 300° F
Suggested Pretreatment:	Grit Blast and/or Phosphate
Suggested Application Methods:	Dip Spin <input checked="" type="checkbox"/>
	Spray <input checked="" type="checkbox"/>

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

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Typical Functional Properties

	<u>ASTM Test Method</u>	<u>Value</u>
Corrosion Resistance		
Test Panel	ASTM B117	< 250 hrs. @ 5% Neutral Salt Spray
Test Panel Coating Method		0.5 mil on grit blasted steel panel
Abrasion Resistance	ASTM D4060	Excellent
Coefficient of Friction	ASTM D2714	0.04 to 0.08
Operating Temperature Range		-365° to 500°F (-221° to 260°C)
Load Carrying Capacity	ASTM 2625, Method B	> 250,000 psi
Wear Life	ASTM 2625, Method A	N/A

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:	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 One year from date of shipment, stored in a factory sealed container between the and temperatures, 40° to 90°F. Coatings are thermally stable, but we do not recommend Storage: prolonged exposure outside of the specified temperature range listed above.

Packaging: Kal-Gard® 7300 is available in 5-Gallon Pail, Gallon, 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 Test are performed on each production lot.

¹ Based on 100% transfer efficiency at a dry film thickness of 0.001 inch (25 microns).

² Contact Technical Services for additional options.

³ Specific chemical tested per the specification requirements.

Issue Date: 07/16/03, Latest Revision Date: 10/16/03

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