Poxylube #955

PFAS FREE HEAT CURE DRY FILM LUBRICANT

SERIES E955

WATERBORNE PFAS FREE COATING
RoHS COMPLIANT

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DESCRIPTION

Poxylube #955 Dry Film Lubricant is a single component heat cured water base coating formulated with friction reducing materials to provide excellent lubrication, fluid resistance and corrosion protection. This heat cured material prevents corrosion, galling, seizing, and fretting.

Once Poxylube #955 has been applied to a properly prepared surface and cured, it is virtually unaffected by atmospheric and fretting corrosion, solvents, acids, oils and degreasers. Poxylube #955 can be applied to all metallic and nonmetallic surfaces by spray or dip application.

Poxylube #955 CONTAINS NO PFAS or GRAPHITE.

OUTSTANDING FEATURES/BENEFITS

- PFAS FREE
- Excellent corrosion protection
- Low VOC
- Easy application
- Water base
- Provides excellent lubrication
- Provides heavy duty service as an exterior protective coating for all metals including magnesium
- Offers resistance to chemical corrosion, solvents, abrasion and impact
- Exhibits good thermal stability

NOTICE

Before using this product, read all warnings, limitations and safety information printed on the product label, Safety Data Sheet (MSDS) and Technical Data Sheet. The properties listed on this sheet are not intended for use as a specification. Please contact our Technical Service Team.

Refer to our website for answers to common questions:
https://www.sandstromproducts.com/resources/FAQs/

COMPOSITION AND PHYSICAL PROPERTIES (RESULTS ARE COLOR DEPENDENT)

Net Weight per gallon^ *ASTM D1475*	9.1292 lbs./Gal	**Vehicle**	Modified epoxy
Weight Solids	37.15% (Theoretical)	**Lubricating Pigment**	Wax Alloy
Volume Solids	29.50% (Theoretical)	**Color**	Black. Custom Colors Upon Request
VOC + water	<1.0 lbs./gallon (<120 g/L)		
VOC – water	<2.1 lbs./gallon (<250 g/L)	**Gloss^** ASTM D523	6 - 12 gloss units @ 60°
pH	10+	**Shelf Life**	12 months from Date of Shipment
Viscosity^ *ASTM D562* @ 77°F	55 - 60 KU's	**Storage Conditions**	50° – 100°F
		Freeze/Thaw Stability	KEEP FROM FREEZING
Coverage Rate *	930 – 1155 sq. ft./gal @ 0.5 mil DFT	**Flash Point**	195°F +/-2°F SETAFLASH
Dry Film Thickness	0.5 – 1.0 mils		

* Actual figures do not include spray loss. Also allow for surface irregularities and porosity, as well as material loss when mixing.
^ Property tested with each production batch.

PERFORMANCE AND FUNCTIONAL PROPERTIES

CS-17 Taber Abrasion *ASTM D4060*	35-40 mg loss* / 1000 cycles	**Corrosion Protection:**	
Chemical/Fluid Resistance: *ASTM D2510A, ASTM D2510C*		*ASTM B117: Steel MIL-DTL-16232 Type M Class 3*	500 hours (at 0.5 mil)
MIL-PRF-46010 Table I Fluids	Pass	*ASTM B117: Aluminum MIL-A-8625 Type 2*	2500 hours ** (at 0.5 mil)
Skydrol	Pass		
*MEK and Acetone double rubs^*	200+ with no softening (^ MEK tested to 100)	**Operating Temperature Range**	-320°F to +500°F
Coefficient of Friction*	ASTM D2714 .0657	**Thermal Stability** *ASTM D2511*	Pass

* Results based on pigment used in color formulation.
** Tests halted before failure.
^ Property tested with each production batch.

GENERAL

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For maximum service, the APPLICATION INSTRUCTIONS MUST BE FOLLOWED CLOSELY. Use a forced draft oven for all curing operations.

COVERAGE

One gallon of this material will theoretically cover 950 sq. ft. with a dry film thickness of 0.0005 inches. Coverage depends upon method of application and other variables such as overspray and type of surface to be coated. Above coverage rates are based on 100% efficiency.

SURFACE PREPARATION

Please contact Sandstrom Products Company for substitute surface preparations if recommended steps cannot be followed.

Application on steel. Pre-clean the steel surface with aliphatic naphtha or any other EPA compliant cleaner that sufficiently cleans surfaces to pass ASTM F22. Abrasive blast the surfaces with 180-220 grit aluminum oxide (25-50 RMS optimum). Phosphate IAW MIL-DTL-16232 (weight should be 11-22 g/m2), type M, class 3 or type Z, class 3.

Application on stainless steels. Pre-clean the steel surface with aliphatic naphtha or any other EPA compliant cleaner that sufficiently cleans surfaces to pass ASTM F22. Abrasive blast the surfaces with 180-220 grit aluminum oxide (25-50 RMS optimum). Passivate the surfaces with ASTM A967, types nitric 1, nitric 2 or nitric 3, as applicable.

Application on aluminum and aluminum alloys. Pre-clean the aluminum surface with aliphatic naphtha or any other EPA compliant cleaner that sufficiently cleans surfaces to pass ASTM F22. Sulfuric acid anodize IAW MIL-PRF-8625 and seal the surface with hot deionized water (>180°F for 30 minutes).

Application on titanium and titanium alloys. Degrease the surfaces to be coated with aliphatic naphtha or any other EPA compliant cleaner that sufficiently cleans surfaces to pass ASTM F22. Abrasive blast the surface with 180-220 grit aluminum oxide (25-50 RMS optimum) and alkaline anodize.

Application on copper and copper alloys. Pre-clean the copper surface with aliphatic naphtha or any other EPA compliant cleaner that sufficiently cleans surfaces to pass ASTM F22. Abrasive blast the surfaces with 180-220 grit aluminum oxide (25-50 RMS optimum). Form a black oxide finish on the surfaces.

IMPORTANT! ***DO NOT TOUCH CLEAN SURFACE WITH FINGERS - OIL FROM THE HANDS WILL INTERFERE WITH PROPER COATING ADHESION.*** Whenever possible, treat both contact surfaces (i.e., the shaft and the bearing).

STIRRING

IMPORTANT! STIR THOROUGHLY BEFORE USE AND INTERMITTENTLY DURING APPLICATION.

DO NOT SHAKE. STIR ONLY

WARNINGS: It is IMPERATIVE to use a properly vented oven-DIRECT VENT TO THE OUTSIDE.

DANGER! USE WITH ADEQUATE VENTILATION.

THINNING

For conventional spraying - Use as supplied.

For dipping - Reduce 5.0 – 10% by weight with RO, DI or distilled water (Resistivity > 1.0 MΩ-cm) to a viscosity of 26 to 28 Seconds #2 EZ Zahn. Viscosity may need to be higher or lower to achieve proper drainage depending on the configuration of the part being dipped.

APPLICATION

Poxylube #955 should be sprayed or dipped to the desired film thickness (usually 0.0003 to 0.0007 inches). Allow the surface to dry at least 30 minutes before baking at 77°F ± 5°F and ≤ 70% relative humidity before baking. Lower temperatures and/or higher humidity may require a longer dry time to prevent film defects.

A flash dry at 140°F - 160°F for 10 - 15 minutes followed by force drying at 200°F for 20 minutes will prevent blistering defects if the applied film exceeds 1.0 mil in dry film thickness. When applying the coating in multiple coats, use this method to prevent film defects and maintain inter-coat adhesion.

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It is Important to keep the container of Poxylube #955 closed when not in use to avoid change in volume solids.

BAKING

Poxylube #955 must be cured according to one of the following schedules:

60 minutes @ 300°F or
25 minutes @ 350°F or
20 minutes @ 375°F or
15 minutes @ 400°F.

IMPORTANT! The hour begins when **the part** has reached the baking temperature, NOT when it is placed in the Class A oven. In cases of very thick metals, an extra hour may be required to bring the part up to the proper temperature. Thermocouples may be used to determine the true temperature of the metal.

CLEANUP

Use soap and water before coating has dried. Acetone may be used for dried film before curing.

REMOVAL

In the event it is necessary to remove Poxylube #955, physical removal is best (such as grit blasting, sanding, or grinding).

Strict compliance to the instructions given in Surface Preparation, Stirring and Baking is very essential for obtaining optimum results.

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