TECHNICAL INFORMATION GUIDE

POXYLUBE® #820

AIR DRY
PTFE MODIFIED COATING

SERIES E885

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GENERAL DESCRIPTION

Sandstrom **POXYLUBE® #820** Dry Film Lubricant is a single component epoxy formulated with PTFE to provide excellent lubrication, fluid resistance, and corrosion protection. This **Air Drying** material prevents corrosion, galling, seizing and fretting.

Excellent **Corrosion Protection** and ease of application are its outstanding characteristics. **SANDSTROM POXYLUBE® #820 CONTAINS NO GRAPHITE.**

Complete application instructions are on the reverse of this sheet.

RECOMMENDED USAGE

Sandstrom POXYLUBE® #820 is an excellent in-plant or field solution to the problem of lubricating parts:

- Where application of a baked-on lubricant is not possible
- Which may be operated in corrosive atmospheres
- That may be stored for long periods
- Which are seldom lubricated once they leave the factory and where permanent lubrication is desired
- Where easy release is desired (such as threads of all kinds)
- Where "clean operation" is desired (**POXYLUBE® #820** will not collect dirt and debris as do grease and oils)
- Where parts may be subjected to frequent disassembly
- Where a protective coating and sacrificial break-in lubricant is needed
- Where fretting and galling is a problem (such as splines, universal joints and keyed bearings)

COMPOSITION AND PHYSICAL PROPERTIES

NET WEIGHT PER GALLON	7.2 - 8.5 lbs
SOLIDS CONTENT (BY WEIGHT) (Theoretical)	Black 17.52 ± 2% Clear 15.07 ± 2%
VISCOSITY (1 Zahn @ 77°F)	30 -41 secoonds
FLASH POINT	Black 27°F ± 2°F Clear 39°F ± 2°F
OPERATING TEMP. RANGE	**-320°F to +300°F**
CORROSION PROTECTION	750 hours

(5% salt fog @ .0005" film thickness over zinc phosphated steel)

COLORS	Clear and Black
SHELF LIFE	1 year from date of shipment
VEHICLE TYPE	100% Epoxy
LUBRICATIVE PIGMENT	PTFE
THEORETICAL VOC	6.1 - 6.4 lbs/gallon

NOTICE

Before using this product, read all warnings and safety information printed on the label, the Material Safety Data Sheet, and the Technical Info-Guide

GENERAL

For maximum service, the **APPLICATION INSTRUCTIONS MUST BE CLOSELY FOLLOWED**. The lubricant is flammable and the safety precautions usually followed when using flammable materials must be observed.

COVERAGE

One gallon of this material will theoretically cover 300 sq.ft. with a dry film thickness of .0005 inches. Coverage depends upon methods 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

The following surface preparations are recommended for the individual metals listed to develop maximum adhesion, wear life, and corrosion protection. Please contact Sandstrom Products Company for substitute surface preparations if recommended steps cannot be followed.

STEEL - Degrease using naphtha meeting the requirements of FED spec TT-N-95; grit blast (25-50 rms optimum); remove grit blast debris from surface; zinc phosphatize (1100-1400 milligrams per sq. ft.).

STAINLESS STEEL - Degrease using naphtha meeting the requirements of FED spec TT-N-95; grit blast (25-50 rms optimum); remove grit blast debris from surface; passivate.

ALUMINUM - Degrease using naphtha meeting the requirements of FED spec TT-N-95; anodize (hot water or nickel acetate seal only) or hard coat and seal.

TITANIUM - Solvent wash (non-chlorinated) and alkaline anodize; (Tiodize Type I or II).

COPPER ALLOYS - Degrease using naphtha meeting the requirements of FED spec TT-N-95; then pretreat using one of the following methods (in order of preference).

a) Black oxide treat (according to MIL. Spec. MIL-F495C)
b) Bright dip, or grit blast (25-50 rms optimum)

IMPORTANT! AVOID TOUCHING THE SURFACES TO BE COATED WITH THE FINGERS - OIL FROM THE HANDS WILL INTERFERE WITH PROPER COATING. Whenever possible treat both contact surfaces (i.e., the shaft and the bearing).

STIRRING

IMPORTANT! THIS LUBRICANT SHOULD BE STIRRED THOROUGHLY BEFORE USE AND **CONTINOUSLY** DURING APPLICATION.

THINNING

For spraying - If necessary, reduce up to 1 to 1 with a blend of 2 parts MEK and 1 part PM solvents.
For dipping - Thin 4 parts of **POXYLUBE #820** with 1 part PMA solvent.

APPLICATION

Sandstrom **POXYLUBE® #820** should be sprayed or dipped to the desired film thickness (usually .0003 to .0007 inches). Allow the surface to dry at least 30 minutes to 1 hour before doing light assembly work.

DRYING

Air drying 6 hours will yield maximum hardness. This material may also be force cured by using moving hot air or infrared bulbs. After a flash time of 15 to 30 minutes, **POXYLUBE® #820** can be force cured according to the following schedule:

90 minutes @ 150^{0}F or
45 minutes @ 175^{0}F or
25 minutes @ 200^{0}F.

Note: Start time when parts reach temperature.

Important to keep container of POXYLUBE® #820 closed when not in use to keep loss of solvents at minimum and avoid change in volume solids.

CLEANUP

Use the same solvents for cleaning tools as are recommended for thinning or use MEK.

REMOVAL OF SANDSTROM POXYLUBE® #820

In the event it is necessary to remove **POXYLUBE® #820**, physical removal is best (such as grit blasting, sanding or grinding). Also, selected epoxy cold strippers.

*****Strict compliance to the instructions given in Surface Preparation and Stirring is essential to obtain optimum results.

POXYLUBE #820 PTFE Modified Coating passes the fluid resistance tests specified in MIL-L-46147.

WARNINGS: Constant stirring is imperative for best results.
Caution: Flammable. Keep away from heat, sparks, and open flame. Use with adequate ventilation.
Avoid prolonged breathing of vapors. If swallowed, DO NOT INDUCE VOMITING--call physician immediately.
Contains METHYL ETHYL KETONE.