



PTFE MODIFIED DFL
SOLID FILM LUBRICANT: HEAT CURE
SERIES E874
ROHS COMPLIANT

SANDSTROM
PRODUCTS COMPANY
 PORT BYRON, IL 61275 • 1-309-523-2121
 1-800-747-1084 • FAX: 1-309-523-3912
www.sandstromproducts.com

DESCRIPTION

Sandstrom PTFE Modified Dry Film Lubricant is a heat curing, single component epoxy / phenolic coating formulated with PTFE. It lubricates with excellent corrosion protection and fluid resistance. This coating shares the same resin system as Sandstrom 9A, a material with a proven track record through over 50 years of military and industrial applications worldwide.

OUTSTANDING FEATURES/BENEFITS

- Proven resin system (matches Sandstrom’s 9A)
- Provides corrosion protection and fluid resistance
- Lead-free

TYPICAL USES

- Moving parts, such as cylinder walls for pumps
- Areas where lubrication and protection from corrosion and fluids are desired

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/>

LIMITATIONS

- Currently not certified for use in areas where contact with food may occur
- Do not use where contact with liquid oxygen may occur

COMPOSITION AND PHYSICAL PROPERTIES

Net Weight per Gallon[^] Per ASTM D1475	8.0 ± 0.5 lbs./gallon	Vehicle	Epoxy - Phenolic
Weight Solids[^] per ASTM D2369	40.0% ± 5.0%	Lubricating Pigment	PTFE
Volume Solids	30.0% ± 1.0% (Theoretical)	Color	Black
VOC	5. lbs./gallon (Theoretical)	Color Stability	Not for Exterior Use
Odor	Solvent	Finish	Matte
Viscosity[^] ASTM D562	50 – 60 KUs @ 77°F Stormer Viscometer	Coverage Rate[*]	592 sq. ft./gallon @ 1.0 mil DFT
Shelf Life	12 Months from Date of Manufacture	Recommended Coats	1
Storage Conditions	≤ 100°F	Dry Film Thickness	0.0005 in. – 0.001 in.
Freeze/Thaw Stability	Stable		
Flash Point	23°F (Theoretical)		

*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.

IMPORTANT NOTICE TO BUYER / WARRANTY AND LIMITATIONS ON OUR LIABILITY

We warrant our products to be free of manufacturing defects and that they meet our current published physical properties and specifications. All information and suggestions presented are rendered gratis and are accurate to the best of our knowledge. They are based on technical data we believe to be reliable and are intended for use by persons having skill and “know-how” at their own discretion and risk. Prior to use, customers are cautioned to determine the suitability of our products for any given application through their own testing. **NO WARRANTY IS MADE, EXPRESS OR IMPLIED, REGARDING SUCH INFORMATION, THE DATA ON WHICH IT IS BASED OR THE RESULTS OBTAINED FROM ITS USE OR THAT OUR PRODUCT SHALL BE MERCHANTABLE OR FIT FOR ANY PARTICULAR PURPOSE. SUCH STATEMENTS ARE NOT INTENDED TO SUGGEST INFRINGEMENT OF ANY PATENT.** Since conditions of use of our products are beyond our control, all suggestions and statements are made without guarantee, warranty or other responsibility, express or implied, on our part. We assume no responsibility for results obtained, or damages incurred, from their use beyond replacing material proved to be defective or refunding the purchase price of such material at our option. Acceptance of delivery of our product means you have accepted the terms of this warranty, whether or not purchase orders of other documents state terms that vary from this warning. No seller is authorized to make any representations or warranty or assume any other liability on our behalf with any sales of our products. SANDSTROM PRODUCTS COMPANY

PERFORMANCE AND FUNCTIONAL PROPERTIES			
Chemical/Fluid Resistance Table 1 Fluids per MIL-PRF-46010 ASTM D2510C	PASS	Coefficient of Friction ASTM D2714	0.0961
CORROSION PROTECTION ASTM B117 over Manganese Phosphate	650 Hours		
ABBRASSION RESISTNACE ASTM D4060 Taber Abrasion	20-30mg/1000 Cycles CS17 Wheel 1000 gm load		
PENCIL HARDNESS	5H		

GENERAL

For maximum service, the APPLICATION INSTRUCTIONS MUST BE FOLLOWED CLOSELY. This product is flammable and the safety precautions followed when using any flammable material must be observed.

FILM THICKNESS & ENGINEERING TOLERANCE

As supplied, this product will yield a film thickness of about 0.0005 inches per spray application. Usually engineering tolerances will permit necessary minimum film buildup of 0.0005 to 0.001 inches without interference. Whenever possible, the proper tolerances should be designed into the part.

COVERAGE

One gallon of this material will cover 348 sq. ft. with a dry film thickness of 0.001 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

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

Application on steel. Pre-clean surface with aliphatic naphtha or any other EPA compliant cleaner that sufficiently cleans surface to pass ASTM F22. Abrasive blast surface 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 (optimal performance) or type Z, class 3.

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

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

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

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

STIRRING

IMPORTANT! STIR THOROUGHLY BEFORE USE AND INTERMITTENTLY DURING APPLICATION.

THINNING (RECOMMENDED RATIOS)

None required for most spray applications. If needed use 2 parts coating to 1 part PM solvent (Sandstrom D106 Thinner) by volume.

APPLICATION

Coating designed for application by spraying only.

Coating should be sprayed to the desired film thickness (0.0005 to 0.001 inches). Allow parts to flash off **at least** 30 minutes at 77°F ± 5°F and ≤ 70% relative humidity. Lower temperatures and/or higher humidity may require a longer dry time to prevent film defects.

It is important to keep container closed when not in use to keep loss of solvents at a minimum and avoid a change in volume solids.

BAKING

Bake for 60 minutes @ 400°F in a forced draft oven to yield optimum corrosion protection and wear life.

IMPORTANT! The time starts when **the part** reaches temperature, not when placed in a 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 the same solvents for cleaning tools as are recommended for thinning.

REMOVAL

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

WARNINGS: Frequent stirring is imperative for best results.

DANGER! USE WITH ADEQUATE VENTILATION.

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).

IMPORTANT NOTICE TO BUYER / WARRANTY AND LIMITATIONS ON OUR LIABILITY

We warrant our products to be free of manufacturing defects and that they meet our current published physical properties and specifications. All information and suggestions presented are rendered gratis and are accurate to the best of our knowledge. They are based on technical data we believe to be reliable and are intended for use by persons having skill and "know-how" at their own discretion and risk. Prior to use, customers are cautioned to determine the suitability of our products for any given application through their own testing. NO WARRANTY IS MADE, EXPRESS OR IMPLIED, REGARDING SUCH INFORMATION. THE DATA ON WHICH IT IS BASED OR THE RESULTS OBTAINED FROM ITS USE OR THAT OUR PRODUCT SHALL BE MERCHANTABLE OR FIT FOR ANY PARTICULAR PURPOSE. SUCH STATEMENTS ARE NOT INTENDED TO SUGGEST INFRINGEMENT OF ANY PATENT. Since conditions of use of our products are beyond our control, all suggestions and statements are made without guarantee, warranty or other responsibility, express or implied, on our part. We assume no responsibility for results obtained, or damages incurred, from their use beyond replacing material proved to be defective or refunding the purchase price of such material at our option. Acceptance of delivery of our product means you have accepted the terms of this warranty, whether or not purchase orders of other documents state terms that vary from this warning. No seller is authorized to make any representations or warranty or assume any other liability on our behalf with any sales of our products. SANDSTROM PRODUCTS COMPANY