#75C

SOLID FILM LUBRICANT: HEAT CURE

SERIES E741

CONDUCTIVE COATING

SANDSTROM PRODUCTS COMPANY

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DESCRIPTION

Sandstrom #75C Conductive Solid Film Lubricant is a paint-like coating containing graphite. This heat curing material provides excellent conductivity while exhibiting low friction properties. Once #75C has been cured, it is virtually unaffected by solvents, oils, degreasers, aviation fluids and water. Sandstrom #75C can be applied to a wide variety of surfaces by spraying or dipping.

OUTSTANDING FEATURES/BENEFITS

Provides excellent conductive properties and chemical resistance.

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.

TYPICAL USES

- Where conductivity is needed.

LIMITATIONS

- Offers limited corrosion resistant capabilities.

COMPOSITION AND PHYSICAL PROPERTIES

Net Weight per gallon	8.2 – 8.8 lbs.	**Vehicle**	Epoxy
Weight Solids	20 - 24%	**Lubricating Pigment**	Graphite
Volume Solids	15% (Theoretical)	**Color**	Dark Gray
VOC	6.81 lbs./gallon	**Finish**	Matte
Viscosity	16 - 20 seconds, #2 Zahn @ 77°F	**Cleanup**	See CLEANUP
Shelf Life	1 year from date of shipment	**Thinner**	See THINNING
Storage Conditions	50 – 100°F	**Drying Time**	See APPLICATION & BAKING
Flash Point	21°F		
Coverage Rate*	470 sq. ft. @ 0.5 mil		
Recommended Coats	1		
Dry Film Thickness	0.3 mil		

*Actual figures do not include spray loss. Also allow for surface irregularities and porosity, as well as material loss when mixing.

PERFORMANCE AND FUNCTIONAL PROPERTIES

Chemical/Fluid Resistance:

MIL-PRF-46010 Table 1 Immersion Fluids (incl. Skydrol & Brake Fluid):

ASTM D2510A	Exceeds
ASTM D2510C	Exceeds
MEK double rubs	200+ with no softening

Conductivity	Excellent <60 ohms at 1 mil DFT
Corrosion Protection	Not recommended

GENERAL
For maximum service, the APPLICATION INSTRUCTIONS MUST BE CLOSELY FOLLOWED.

FILM THICKNESS & ENGINEERING TOLERANCE
As supplied, Sandstrom #75C will yield a film thickness of about 0.0003 inches without interference. If excess buildup does occur and a force fit is necessary, burnishing lightly will assist in mating the parts. The remaining excess will be worn away in the first few cycles of operation. Whenever possible, the proper tolerances should be designed into the part.

COVERAGE
One gallon of this material will theoretically cover 470 sq. ft. with a dry film thickness of 0.0005 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 in the Application Appendix of the military specification to develop maximum adhesion, wear life, and corrosion protection. 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. Sandblast the surfaces with 180-220 grit aluminum oxide. 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. Sandblast the surfaces with 120 grit aluminum oxide. 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-A-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. Sandblast the surface with 180-220 grit aluminum oxide 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. Sandblast the surfaces with 180-220 grit aluminum oxide. 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! THIS LUBRICANT CONTAINS HEAVY PIGMENTS WHICH SETTLE RAPIDLY. THEREFORE, IT SHOULD BE STIRRED THOROUGHLY BEFORE USE AND **CONTINUOUSLY** DURING APPLICATION.

THINNING
Not recommended, use as supplied.

APPLICATION
Sandstrom #75C should be sprayed or dipped to the desired film thickness, (usually 0.0003 to 0.0008). Allow the surface to dry **at least** 30 minutes before baking.

It is important to keep container of Sandstrom #75C closed when not in use to keep loss of solvents at minimum.

BAKING
This material must be cured by using moving hot air or infrared bulbs. After a flash time of minimum 30 minutes, Sandstrom #75C can be cured according to the following schedule using a forced draft oven:

60 minutes @ 400°F

IMPORTANT! The hour begins when **the part** has reached 400°F, NOT when it is placed in the oven.

IT IS IMPERATIVE TO USE A PROPERLY VENTED OVEN (DIRECT VENT TO THE OUTSIDE).

CLEANUP
Use Sandstrom D169 Thinner.

REMOVAL OF #75C
In the event it is necessary to remove Sandstrom #75C, physical removal is best (such as grit blasting, sanding or grinding).

WARNINGS: Constant stirring is imperative for best results.

DANGER! USE WITH ADEQUATE VENTILATION.

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