

TECHNICAL DATA SHEET

FD-300

**NON-SLIP DECK COATING
MIL-D-81346 TYPE II**

Description

FD-300 Non-Slip Deck Coating is a light weight, fast drying deck coating formulated from a combination of epoxy resins to provide optimum toughness and slip resistance.

FD-300 was originally developed for the U.S. Navy to provide a durable, fast drying coating from metal surfaces that would provide essential non-slip protection for personnel and landing aircraft. Typical applications include portable landing mats, floating pontoons, ribbon bridges and special purpose vehicles.

Fire retardant in the cured state, **FD-300** is resistant to most acids, alkalies, solvents, gasoline, oil and jet fuels. It is designed as a finish coat.

Surface Preparation

FD-300 can be applied to any clean, dry surface. All rust, mill scale, paint, dirt, grease, oil, etc. must be completely removed. Recommended methods of cleaning steel surfaces area as follows below:

- Grit blasting to SA 2.5 (near white metal) or SSPC-SP10 is the preferred method of cleaning and results in better surface for adhesion.
- Where grit-blasting is not feasible, power tool cleaning utilizing power sanders fitted with #16 grit aluminum oxide sanding discs can produce a sufficiently clean surface provided cleaning is carefully and intensively done.
- If there is oil or grease on the surface, it must be removed prior to cleaning. The preferred method is to scrub with a strong detergent and flush area thoroughly while still wet. An alternative method is to remove the grease or oil with a solvent such as xylene. Solvents are flammable and must be handled with care. It is important that the solvent not be allowed to evaporate during the cleaning process and re-deposit grease or oil on deck.

It is recommended that MS-3C or MS-7C Primer be applied on metal surfaces immediately after the surface has been cleaned and before rust or oxidation has had a chance to form or surface becomes dirty or contaminated in any way.

Application

FD-300 is designed to be applied over primer.

- FD-300** is a two-part coating consisting of a base material and a hardener.

Specifications

V.O.C.

- 3.2 lbs. per gal.
(379 grams/liter)

Volume Solids (%)

- 57%

Pot Life

- 8 hours @ 70°F (21°C)

Hard Dry

- 6 hours @70°F (21°C)

Cure Time

- 4 days @70°F (21°C)

Estimated Coverage

- 45-55 sq. ft. per 1 gal. - spray
- 45-50 sq. ft. per 1 gal. - trowel
- 30-40 sq. ft. per 1 gal. - roller

Weight per Galon

- 14.0 lbs. per gal.
(1.68) kg./liter)

Flash Point

- 102°F (39°C)-CC

Coefficient of Friction

IAW MIL-SPEC

- Dry - 0.85
- Wet - 0.85

Packaging

- 5 gallon kits

Standard Color

- MC Green

Additional Information Available: WWW.ITWAST.COM

2. Pre-mix base component. Make sure all settlement is lifted off the bottom of the container and is uniformly dispersed in the material.

3. Pour entire contents of the hardener into the base material. Mix hardener and base material with a mechanical mixer for approximately 3-5 minutes or until mixed material assumes a uniform color and appearance. Material can be immediately applied since induction time is not required.

4. Working pot life is approximately 8 hours at 70°F. Pot life is increased at lower temperatures at lower temperatures and decreased at higher temperatures.

5. **FD-300** can be applied at ambient temperatures between 40°F and 90°F. At below 50°F surface temperature, curing time will increase substantially. Application when surface temperature is above 130°F or below 50°F is not recommended. Avoid application during periods of high humidity.

Application Techniques

Spray

1. **FD-300** should not be thinned. Thinning could result in grit not remaining properly in suspension.

2. Specialized mastic type spray equipment may be required. A recommended set-up is as follows:

a. A 5-gallon bottom outlet pressure tank equipped with a double regulator and an air driven agitator, and 1" I.D. outlet pipe.

b. 25 feet of 3/8" material air hose with 3/8" female connectors at each end.

c. 25 feet _" material hose with _" female connectors at each end.

d. A Binks Model 7E2 spray gun equipped with _" internal air cap or a Binks Model 52-2012 (4 foot) pole gun equipped with the same fluid nozzle and air nozzle.

3. Minimum air supply required is 20 CFM at 90 lbs. pressure. Recommended pressure is 15-20 psi on material and 20-25 psi on atomization. Always keep atomization air pressure higher than pot pressure. Keep agitator running slowly. Good coverage and film thickness will be obtained working at 18" or 24" distance from surface. Overlap strokes about 50%. Make sure of wet application. Very little abrasive rebound will be noticed at 15psi; however, it will be more noticeable at higher pressures.

4. When temperature is above 80°F, it is advisable to flush the spray equipment with epoxy solvents every hour or so in order to prevent the possibility of any material setting up and plugging the equipment.

Trowel

1. Use a flexible bladed plasterer's finishing trowel approximately 4 inches by 12 inches. Use smooth edges, not notched.

2. Pour a "ribbon" of **FD-300** on the surface 2' to 3' long and approximately 6" to 12" wide.

3. Hold trowel at 45° angle to surface and spread with sweeping motion. Reverse angle of trowel for opposite stroke. Pull material toward you. To cover corners, etc. pull straight strokes using material on the trowel. Trowel across welds to avoid to thick an application.

Roller

1. Use a phenolic roller available from American Safety Technologies. It is important that the roller profile expose the maximum amount of non-slip aggregate. If aggregate is not properly exposed, the coating will become slippery when wet.

2. Pour a "ribbon" of ∞ on the surface 2' to 3' long and approximately 6" wide. Roll material in one direction only, in slow straight strokes pulling material toward you with a moderate amount of pressure on roller handle. Do not over-roll too many times or press down too heavily. Be careful that material does not build up too thickly along welds (roll across welds, not along them). Material applied too thickly may not properly cure.

3. Higher temperatures will shorten drying time and conversely, lower temperatures and high relative humidity will lengthen drying time. Exterior application must be protected from rain for at least 12 to 24 hours after application according to humidity. Protect from heavy or extended exposure to water, oil and chemicals for 5 to 7 days during the final cure.

Surface Maintenance

To maintain the non-slip, safety performance of **FD-300**, we recommend periodic cleaning with an approved cleaner/degreaser in accordance with current military directives. Scrub surface with a long handled, fiber bristled brush or floor machine. Rinse with clean water and dry.

Foreign matter such as chewing gum should be removed with a scraper or putty knife and then cleaned as above.

CAUTION

Read Material Safety Data Sheet before using this material.

Contains epoxy resins. Catalyst contains Amines. Use only with adequate cross ventilation. Keep away from extreme heat, sparks and open flame. Avoid prolonged breathing of vapors. For dizziness, seek fresh air. Toxic material. Avoid contact with skin. Use gloves, goggles and coveralls. In case of spillage on clothing, change clothing to prevent prolonged contact with skin. Wash contaminated clothing before reuse. Discard contaminated shoes. In case of accidental contact with skin, wash immediately with soap and water. In case of eye contact, flush thoroughly with plenty of water and call physician. If swallowed accidentally, do not induce vomiting. Seek medical attention immediately.

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