

Technical Bulletin # 2005

Non-slip floor and deck coating

Product Description

AS-250 is a general purpose, vehicular grade, non-slip deck coating designed for application in slippery areas to make them safer for operations of foot and rolling equipment traffic. AS-250 was originally developed for application on flight decks of aircraft carriers to provide the greatest possible resistance to wear and tenaciously adhere to decks so as not to fracture or disintegrate under the impact of high speed aircraft landings.

Fire retardant in the cured state, AS-250 resists fire, most acids, alkaline, solvents, grease, oil, salt water, detergents, alcohol, gasoline, jet fuels, and other hydraulic fluids. Refer to American Safety Technologies Chemical Resistance Table for detailed performance data.

Surface Preparation**CONCRETE**

Remove oil, grease, dirt, wax, etc., by dissolving with a commercial grade cleaner/degreaser then flush the area thoroughly with clean water and allow it to dry. Remove all paint films, laitance, and loose concrete by scarification or shot blasting. Patch any holes or significant defects with AS-5000 Epoxy Patching compound. Smooth or glazed surfaces should be roughened and new concrete should cure at least 30 days with good ventilation prior to application. Form release agents, hardeners, sealer, etc... will interfere with adhesion and must be removed. Prime the surface with PS-100 WB Water-based primer or EP-100.

METAL

All surfaces must be clean, dry and free of surface contamination. Remove all deposits of oil and grease using Solvent Cleaning method SP-1. All previous coating, rust and mill scale should be removed and the surface abraded to a Commercial Grade SP-6. Blasted surfaces should be primed immediately with MS-5C Industrial Primer.

WOOD/FIBERGLASS

A clean sound surface is required. Remove any dirt or oils from the surfaces with a commercial cleaner/degreaser and allow the surface to dry. Follow with sanding to remove loose or deteriorated surface and to obtain the proper surface profile. For wood prime the surface with PS-100 WB Water-based Primer. For fiberglass use the MS-5C Industrial Primer for the best adhesion.

Application

AS-250 is designed to be applied over a primer.

1. Pre-Mix base component with a mechanical mixer such as a pneumatic drill motor with a Jiffy® mixing blade. Make sure all settlement is lifted off bottom of the container and is uniformly dispersed.
2. Pour entire contents of hardener can into base material. Mix hardener and base material with a mechanical mixer such as a pneumatic drill motor with a Jiffy® mixing blade for approximately 3-5 minutes or until mixed material assumes a uniform color and appearance. Scrape bottom and sides while mixing. Apply material immediately. No induction time is required.
3. Working pot life is approximately 4 hours at 70°F. Pot life is increased at lower temperatures and decreased at higher temperatures.
4. AS-250 can be applied at surface temperatures between 50°F and 130°F. Application is not recommended when surface temperature is above 130°F or below 50°F. At below 50°F, curing time will increase substantially.

Application Techniques**ROLLER**

Rolled applications provide the most aggressive non-slip characteristics with an irregular, ridged profile.

1. Use a phenolic roller available from American Safety Technologies Inc. It is important that the rolled profile expose the maximum amount of non-slip aggregate. If aggregate is not properly exposed, the coating may become slippery when wet.
2. Pour a ribbon of AS-250 on the surface approximately 4" long by 6" wide. Roll material in one direction only, in slow straight strokes pulling material toward you with a moderate amount of pressure until a uniform thickness is achieved. Be careful not to over-roll too many times and avoid applying the material too heavy. Material applied too thickly may not cure properly. Work small sections at a time and make the final pass with the roller in one direction to give an even texture and to help eliminate lap marks.
3. Higher temperatures will shorten drying time and conversely, lower temperature and high relative humidity will lengthen drying time. Exterior applications must be protected from rain for at least 24 hours after application according to humidity. Protect from heavy or extended exposure to water, oil and chemicals for 5 to 7 days.

SPRAY

Sprayed applications will result in a uniform appearance with good non-slip characteristics.

1. AS-250 should not be thinned. Thinning could result in grit not remaining properly in suspension.
2. Specialized mastic type spray equipment is required. A recommended set-up is as follows:
 - a. A 5-gallon bottom outlet pressure tank equipped with a double regulator and an air agitator drive, and 1" I.D. outlet pipe.
 - b. 25 feet of 3/8" air hose with 3/8" female connectors at each end.

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- c. 25 feet of 3/4" material hose with 3/4" female connectors at each end.
 - d. A Binks Model 7E2 spray gun equipped with 1/4" (#45) fluid nozzle and a 1/4" 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 15 psi; 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

Trowelled applications provide excellent non-slip characteristics with a rough, textured surface.

- 1. Use a flexible bladed smooth edge finishing trowel approximately 4 inches by 12 inches.
- 2. Pour a "ribbon" of AS-250 on the surface approximately 4' long and 6" wide. 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.

Surface Maintenance

Maintain a clean surface to ensure that the anti-slip safety performance of AS-250 is maximized. We recommend the following cleaning procedure.

- 1. Apply an all-purpose, biodegradable cleaner/degreaser, diluted with water to the surface.
- 2. Scrub surface with a long-handled, fiber-bristle brush or floor machine. Rinse with clean water and dry.
- 3. Although extremely durable, AS-250 is not a permanent coating and will require occasional touch up, especially in heavy traffic areas.

Standard Colors

Black, Gray, Tile Red, Safety Yellow. Custom colors are available and subject to minimum order requirements. Contact our Customer Service Department for more information at 1-800-631-7841.

Specifications

VOC: 2.07 lbs. per gal. (250 grams/liter)
 VOLUME SOLIDS (%): 71%
 POT LIFE: 4 hours @ 70°F (21°C)
 DRY TIME: Light Traffic - 12 hours @ 70°F (21°C)
 Heavy Traffic - 72 hours @ 70°F (21°C)
 ESTIMATED COVERAGE: 60 sq. ft. per gallon – spray
 50 sq. ft. per gal. – trowel
 40 sq. ft. per gal. – roller
 WEIGHT PER GALLON: 14.9 lbs. per gal. (1.80 kg./liter)
 FLASH POINT: 81°F (27°C) - CC
 COEFFICIENT OF FRICTION ASTM F609: Dry - 1.05
 Wet - 1.05
 PACKAGING: 1 gallon kits
 5 gallon kits

Date

07/2006

<p>CAUTION Read Material Safety Data Sheet before using this material. Use only with adequate cross ventilation. Keep away from extreme heat, sparks and open flame. Keep from freezing. Avoid prolonged breathing of vapors. For dizziness, seek fresh air. 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. 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.</p> <p>The user of this product is responsible for making its own evaluation and tests regarding the capabilities, safety, utility, suitability and application of the product, and assumes all risks and liabilities resulting from the use or application of the product, whether used alone or with other products. ITW Polymer Technologies (herein referenced to as the COMPANY) warrants only that the product conforms to the specifications contained in product Technical Data Sheets</p>	<p>published by the COMPANY, a copy of which is available to the user. If the product fails to conform to this warranty, the user shall return the product within 10 days of the purchase date with a note specifying the defect and the COMPANY will either replace the product or at its option, return the purchase price. EXCEPT AS EXPRESSLY PROVIDED IN THIS PARAGRAPH, THE COMPANY MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, NATURE OR DESCRIPTION, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND HEREBY DISCLAIMS THE SAME. In no event shall the COMPANY be liable to the user of this product, whether in contract or in tort or any other legal theory (including, without limitation, negligence) for damages which exceed the purchase price of the product, or for any indirect, incidental, consequential or similar damages, arising out of sale, use or application of the product, or for any claim made against the user by any other party, even if ITW Polymer Technologies has been advised of the possibility of such claim.</p>
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