ITW- American Safety Technologies

Application Specification

NON-SKID COATING SYSTEM

Non-skid Applied Over GRP Substrates

Specification No. AST-482008 GRP

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1. SCOPE

1.1 Scope. This specification covers the surface preparation, mixing, and application of non-skid coatings over glass reinforced plastic (GRP) and other composite materials.

1.2 Classification. The coating system covered by this specification will be furnished by ITW - American Safety Technologies and will be comprised of the following proprietary products:

Primer	Non-Skid	Color Topping
MS-7CZ	MIL-PRF-24667B Systems	MS-200/MS-275

2. REQUIREMENTS

2.1 Composition. The coating system shall consist of a chemical resistant, two-part, epoxy primer/sealer and a two-part, epoxy non-skid topcoat, as specified in paragraph 1.2. The proprietary system shall meet all Department of Defense Specifications including MIL-PRF-24667B, and quality under MIL-I-45208, MIL-Standard 45662. Products listed in paragraph 1.2 have been specially formulated to meet all above specifications.

2.2 Appearance of dried coating. When applied in accordance with this specification, the primer will dry to a smooth uniform film, free of spotting, streaking, mud cracking, wrinkling, cratering or blistering. When the non-skid is applied by phenolic roller, the non-skid topcoat will have a textured appearance of roughly parallel rows of raised coating, forming peaks or ridges. The aggregate will be uniformly distributed, and will have a coarse, rough appearance. When applied by spray the coating will have the appearance of rough, very coarse sandpaper with the aggregate uniformly distributed.

2.3 Condition in container. Individual components of the two-part coating will not show skinning, livering, curdling, or separation of ingredients, nor will they show any hard settling of grit which cannot be dispersed to a uniform consistency by 5 minutes of stirring with a power mixer.

3. COVERAGE

3.1 System Coverage. The following coverage is required by this specification:

Part Number	Coverage Sprayed
MS-7CZ	270 sq. ft. /gal. (4 mils DFT/6.5 mils WFT)
AST MIL-PRF-24667B Non-skid - See specific product data sheet	
MS-200/MS-275	320 sq. ft. /gal. (5 mils WFT)

4. STORAGE

4.1 Long term storage. Material is to be stored at temperatures not less than 50ºF and not more than 90ºF.

4.2 24 hours before application. Material is to be stored at temperatures between 60° F and 80° F.

4.3 Shelf Life. The shelf life of all coating materials specified in paragraph 1.2 is 1 year from the date of manufacture in accordance with MIL-PRF-24667B.

5. SURFACE PREPARATION

Equipment such as machinery, lights, deck drains and water wash down systems which may be damaged during surface preparation should be protected.

Note: all non-skids, primer, paint, dirt, grease, oil, salts and contaminates must be completely removed prior to cleaning. The preferred method of cleaning is to scrub with a strong detergent such as a 1-2% solution of Trisodium Phosphate (TSP) and flush area thoroughly while still wet. Ensure all detergent is fully removed and no residue is left. Follow the manufacturer's recommendations for mixing, application and safety procedures for detergents. An alternative method is to remove the grease or oil with an approved solvent. It is important that the solvent not be allowed to evaporate during the cleaning process and redeposit grease or oil on the deck. Follow solvent manufacturer's recommendations for mixing, application and safety procedures.

5.1 Vacuum blasting is neither required nor recommended on GRP surfaces. The most used method of surface preparation on GRP is via Power Tool Cleaning. If old non-skid is to be removed a deck scarifying machine with appropriate cutters is recommended. Once the old non-skid is removed or if it is a new deck, the surface shall be sanded utilizing 40-80 grit sandpaper and a dual action sander to roughen the surface and provide the best adhesion for the MS-7CZ primer. **Use personal protective equipment when using power tools.**

6. PRIMER APPLICATION

6.1 Purpose. Primer is required to promote adhesion of the non-skid topcoat and enhance the total performance of the non-skid system. When used on GRP surfaces it also aids in sealing cuts and nicks which occurred during surface preparation. The use of any other primer than specified in paragraph 1.2 is strictly prohibited.

6.2 Surface Condition. As specified in paragraph 5, the surface must be free from all contaminants before application of the primer. If any contaminants are present, they must be removed by using methods outlined in paragraph 5, ensure that no solvent or detergent residue remains on the surface.

6.3 Temperature. As specified in 4.2 the primer should be stored between 60ºF and 80ºF for 24 hours before use. The substrate temperature must be between 40ºF and 140ºF.

6.4 Mixing. Pour the hardener into the container of base material and stir thoroughly by suitable mechanical means for 3-5 minutes.

NOTE: The proper blending of the two components is critical to the performance of the coating. Read MSDS before use.

6.5 Thinning. Not allowed.

6.6 Spray Application. Airless, air assisted or conventional paint spray equipment may be used.

6.7 Roller Application. Use a 3/8” short nap paint type roller. Apply uniformly.

6.8 Brush Application. Use a 4” thin stock brush.

6.9 Primer Film Thickness. Apply at least two mils DFT above the surface anchor profile.

6.10 Pot Life. MS-7CZ - 4 Hrs @ 70ºF

6.11 Induction Time. No induction time is required.

6.12 Cure. Allow 12 hours @ 70ºF before applying the non-skid topcoat. The amount of time for curing will decrease with warmer conditions and increase in colder conditions. The non-skid topcoat should be applied within 36 hours of primer application for best results. If topcoating is delayed more than 7 days, refer to the MS-7CZ ASTM-F718 for guidance.

6.13 Humidity. Maximum of 85%.

6.14 Dew Point. Surface temperature must be a minimum of 5ºF above the dew point.

7. NON-SKID APPLICATION

7.1 Substrate. The primed surface must be free from all contaminants before the non-skid application.

7.2 Temperature. As specified in paragraph 4.2 the non-skid coating should have been stored between 60ºF and 80ºF for 24 hours before use. The substrate temperature must be between 40ºF and 120ºF.

7.3 Mixing. Premix the base component. Make sure all settlement is lifted off the bottom of the container and is uniformly dispersed in the material. Pour the entire contents of hardener can/bag into base material. Mix hardener and base material with a mechanical mixer for 3-5 minutes. The material will assume a uniform color and appearance.

Note: The proper blending of the two components is critical to the performance of the coating. Material not thoroughly mixed will not cure properly. Read MSDS before use.

7.4 Thinning. Not allowed.

7.5 Roller Application. In order to achieve the correct profile, the non-skid

material must be applied with a napless phenolic roller with a 5' roller handle. Pour a ribbon of non-skid material 2' to 3' long and approximately 1' to 2' wide. Roll material in one direction only, in a slow straight stroke pulling material towards you with a moderate amount of pressure on the roller handle.

Borders and other areas where non-skid need not be applied should be taped or masked. The tape is pulled after the non-skid has cured revealing a clean straight line. Borders may then be painted with a proprietary color topping (MS-200/MS-275) available from American Safety Technologies.

7.6 Pot Life. Non-skid - 2 hours @ 70ºF

Pot life is increased at lower temperatures and decreased with higher temperatures.

7.7 Induction Time. No induction time is required.

7.8 Cure. Foot traffic: 24 Hrs @ 70ºF - Heavy vehicles: 96 Hrs @ 70ºF

7.9 Humidity. Maximum of 85%.

7.10 Dew Point. Surface temperature must be a minimum of 5ºF above the dew point.

NOTE: DO NOT apply material when the surface temperature is under 40ºF or over 120ºF.

8. Visual Landing Aids (VLA) and other safety markings.

8.1 Use MS-200/MS-275 Color Topping; Refer to local drawings and specifications, follow manufacturer's technical data sheets and MSDS.

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