
NAVSEA REVIEWED ASTM F-718

ITW AMERICAN SAFETY TECHNOLOGIES

MS-6000 G

MS-6000G

MIL-PRF-24667

If this product is to be applied as part of a coating system, all components of the system must be as listed on the QPL.

This NAVSEA-REVIEWED ASTM F-718 data sheet is the only data sheet approved for use when utilizing this coating for U.S. Navy preservation projects. NAVSEA's review covers only the application process for the material. The review does not denote the material as a qualified product, nor does it constitute an approval for purchase/procurement of the material. For products on the Qualified Products List (QPL) for this MILSPEC, please refer to <https://assist.daps.dla.mil/quicksearch/>

Questions regarding modifications or updates of this ASTM F-718 shall be directed toward:

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SHIPBUILDERS AND MARINE PAINTS AND COATINGS PRODUCT/PROCEDURE DATA SHEET

CONTINUATION SHEET USED: ☐ YES ☒ NO

Date: 20 Dec 2012

I. GENERIC TYPE AND DESCRIPTION: MS-6000G - Epoxy Nonskid Deck Coating Specification Number: MIL-PRF-24667	
II. MANUFACTURERS DATA: (a) MANUFACTURER: ITW American Safety Technologies 130 Commerce Drive Montgomeryville, PA 18936 (b) PRODUCT DESIGNATION: MS-6000G High Durability, Fast Cure Nonskid (c) COLOR(S): Dark Gray (36076), Custom colors: 36270, 31136, 34088, 37038 (d) USES: Extended Durability Abrasive Nonskid Deck Coating for Critical and Non-Critical Decks (e) TECHNICAL SERVICE REPRESENTATIVE Phone: 215-855-8450 Fax: 215-855-4668 Email: SALES@ITWPOLYTECH.COM Website: www.itwast.com (f) NOT RECOMMENDED FOR: N/A	
III. PROPERTIES: (a) % VOLUME SOLIDS (ASTM D 2697): 94.8 ± 2% (b) % WEIGHT SOLIDS (ASTM D 1475): 96 ± 2% (c) FLASH POINT (ASTM D 3278): > 102°F (39°C) (d) WEIGHT PER VOLUME (FTMS 141a4184.1): 15.39 ± 0.3 lbs. per gallon (e) % EDGE RETENTION: N/A (f) SHELF LIFE: 1 Year (g) VISCOSITY (FTMS 141a 4281): COMPONENT A: N/A COMPONENT B: N/A MIXED: 40000 - 55000 cps at 75°F (Brookfield viscosity) (h) PACKAGING: 5 gals. In 6½ gal. pails (i) NUMBER OF COMPONENTS: 2 (j) GLOSS (ASTM D 523): N/A (k) STORAGE REQUIREMENTS: TEMP. MIN. 40°F MAX. 100°F 24 HOURS PRIOR TO MIXING: TEMP. MIN. 60°F MAX. 80°F ADDITIONAL PAINT STORAGE REQUIREMENTS: Colder temperatures will extend cure time (l) VOLATILE ORGANIC COMPOUND (VOC- EPA TEST METHOD 24): 0.74-0.90 lbs per gallon (90.0-110 grams/liter) (m) WEIGHT OF DRY FILM (WEIGHT/FT² AT 1 MIL THICKNESS): 4.13-4.22 grams (0.0091-0.0093 lbs) (n) SPECIAL PROPERTIES: N/A	

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IV. SURFACE PREPARATION MINIMUM REQUIREMENTS (USE SPECIFIC STANDARD NUMBERS):

- (a) INITIAL: Remove grease, oil, and dirt (SSPC-SP1) or other approved method
- (b) TOUCH-UP: For deck edges, hard to reach areas and for areas not to receive non-skid, use power tool cleaning to bare metal, SSPC SP-11 is recommended. A minimum anchor tooth profile of 2 mils is required.
- (c) PROFILE: MIN. N/A MAX. N/A
- (d) SPECIAL INSTRUCTIONS: N/A
- (e) PRIMER REQUIREMENTS (IF APPLICABLE): AST MS-8CZ or AST MS-9CZ. Should be applied minimum 2 mils, DFT.
- (f) MAXIMUM ALLOWABLE CONDUCTIVITY (BRESTLE PATCH METHOD): N/A
- (g) MAXIMUM DEGREE OF FLASH RUSTING ALLOWED: N/A

SPECIAL SAFETY PRECAUTIONS:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: WARNING! IRRITANT. **Read MSDS before use.** Do not get in eyes. Avoid contact with skin and clothing. Avoid inhalation vapor or mist. Use with adequate ventilation. Wash thoroughly after handling, and before eating, drinking or smoking. Remove contaminated clothing and wash before use.

OTHER PRECAUTIONS: Avoid extreme heat – **keep away from flame or other ignition source.**

V. MIXING PROCEDURES: (Improperly mixed material will not cure properly)

- (a) MIXING RATIOS BY WEIGHT: 8.07:1 (Base to hardener)
 BY VOLUME: 3.4:1 (Base to hardener)
- (b) INDUCTION TIME: N/A
- (c) RECOMMENDED SOLVENT – THINNING: NO THINNING ALLOWED
 CONFINED AREAS: NO THINNING ALLOWED
 NON-CONFINED AREAS: NO THINNING ALLOWED
 CLEAN UP: Isopropyl Alcohol
 Aromatic Naptha
 N-Methyl Amyl Ketone (MAK)
 S-426 Solvent
- (d) THINNING REQUIRMENTS (RATIO): NO THINNING ALLOWED
- (e) POT LIFE:
1.0-1.6 Hr(s) @ 90 °F (32°C)
1.5-2.0 Hr(s) @ 70 °F (21°C)
2.0-2.5 Hr(s) @ 50 °F (10°C)
- (f) SPECIAL INSTRUCTIONS: A compound mixing blade may be used to perform both the base material pre-mix and combined components mixing. When a compound mixing blade is used, perform a Pre-mix of base material for at least 1-2 minutes. Following pre-mix of base material; slowly add the hardener to the base material while continuing to mix both components. Once all the hardener is introduced, continue mixing the combined contents of the kit for 2-4 additional minutes or until a homogenous blend of both components is achieved and the mixture presents a uniform color appearance.
- If a single mixing blade is used for mixing, perform a pre-mix of the base material for no less than 3. Slowly add the hardener while continuing mixing. Once all the hardener has been introduced, continue mixing the combined contents of the kit for 3-5 additional minutes. Ensure a homogenous blend of both components is achieved and the mixture presents a uniform color appearance. Additional mixing time may be required to obtain a homogenous blend and a uniform color appearance.
- WARNING – Inadequately mixed material will not cure properly!**

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VI. APPLICATION:

(a) ENVIRONMENTAL LIMITATIONS:

SUBSTRATE TEMPERATURE: MIN. 40°F MAX. 110°F
 MINIMUM SUBSTRATE TEMPERATURE DIFFERENCE ABOVE THE DEW POINT: 5°F
 MAXIMUM PERCENT RELATIVE HUMIDITY: 85%
 AMBIENT TEMPERATURE: MIN. 40°F MAX. 100°F

(b) FILM THICKNESS (SSPC PA2-73T) -

PER COAT: N/A
 TOTAL SYSTEM:
 DRY MIN. N/A DRY MAX. N/A
 SPREAD RATE: 20-30 ft²/gal

(c) DRY TIMES (ASTM D 1640):

Surface Temperature	40°F (4.4°C)	70°F (21.1°C)	90°F (32.2°C)	110°F (43.3°C)
Tack Free	N/A	N/A	N/A	N/A
Dry to Touch	15-30 hrs	5-7 hrs	2-3 hrs	1-2 hrs
Dry Hard	24-30 hrs	8-9 hrs	4-6 hrs	2.5-3 hrs
Dry to Handle*	36-48 hrs	12-16 hrs	8-12 hrs	3-4 hrs
Overcoat – Min**	N/A	N/A	N/A	N/A
Overcoat – Max**	N/A	N/A	N/A	N/A
Cure to Full Service	6-8 days	2-3 days	1-1.5 days	1 day
Color Topping - Max***	30 days	30 days	30 days	30 days

See MS-8CZ/ MS-9CZ ASTM-F718 for Further Guidance

* Minimum dry time before color top coat application of Visual Landing Aid Markings – Minimum dry for foot traffic.

** Except for seam overlap – over coating nonskid with nonskid for shipboard application is not authorized.

*** Apply color topping (Visual Landing Aid markings) prior to placing newly applied nonskid into service.

(d) EQUIPMENT REQUIREMENTS: Phenolic hard core roller with extended handle; ¾ HP, 450 RPM power mixer capable of mixing heavy, mastic materials.

IF PLURAL COMPONENT EQUIPMENT IS REQUIRED STATE SO: N/A

IF HEATED LINES ARE REQUIRED, STATE SO: N/A

(e) SPECIAL INSTRUCTIONS:

IF OVERCOAT WINDOW AS BEEN EXCEEDED FOR CRITICAL APPLICATIONS: Please refer to NAVSEA Standard Item 009-32 and NSTM Chapter 634 Guidelines for secondary surface preparation after 36 hours.

IF OVERCOAT WINDOW HAS BEEN EXCEEDED FOR NON-CRITICAL APPLICATIONS: If the nonskid is applied beyond 36 hours of primer cure, or if less than 7 days has elapsed since the application of the primer, clean the primed area by performing a solvent wipe down. The entire surface shall be cleaned in accordance with SSPC-SP 1. Allow solvent to fully evaporate before applying a proprietary nonskid coating or Color Top Coat to the primed surface.

If more than 7 days but less than 30 days has elapsed since the application of the proprietary primer coat, the entire surface shall be cleaned in accordance with SSPC-SP 1. Ensure the surface has fully dried, then lightly abrade with abrasive blast, power sanding, or hand sanding using 80-120 grit sandpaper. Perform a solvent wipe of the abraded surface and then apply a tack coat (2-3 MILS/ 50-75 MICRONS WFT) of proprietary primer. The tack coat shall be allowed to cure until cured thumbnail hard (fingernails pressed into the coating leave a slight indentation) before applying a proprietary non-skid or Color Top Coat. For application, mixing, and cure time guidance of the proprietary primer refer to the appropriate ASTM F-718.

ADDITIONAL DATA/INSTRUCTIONS:

II. MANUFACTURERS DATA:

III. PROPERTIES:

IV. SURFACE PREPARATION MINIMUM REQUIREMENTS (USE SPECIFIC STANDARD NUMBERS):

V. MIXING PROCEDURES

VI. APPLICATION REQUIREMENTS

(e) SPECIAL INSTRUCTIONS:

- 1) Do not apply when deck temperature is under 40°F or over 110°F.
- 2) At time of application, in accordance with NAVSEA Standard Item 009-32 MATERIAL TEMPERATURE should be no lower than 50°F or higher than 90°F.
- 3) Caution should be taken that the surface temperature is at least 5°F above the dew point at application.
- 4) MS-6000G is formulated to be applied within the parameters listed on this document. NAVSEA Standard Item 009-32 applications may adjust the environmental and application procedures recommended by this ASTM-F718.

WARRANTY DISCLAIMER: The technical data supplied herein has been compiled for the applicator's assistance and guidance and is based on experience and knowledge. However, as a manufacturer, we have no control over the use to which this information is put, no warranty, expressed or implied, is intended or given.