NAVSEA REVIEWED ASTM F-718

Holcim Products and Solutions US LLC / American Safety Technologies

MS-5000G, Two component, high solids, epoxy nonskid deck coating

PRODUCT DESIGNATION

Part A: MS510R

Part B: MS510H

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://qpldocs.dla.mil/search/default.aspx.

Questions regarding modifications or updates of this ASTM F-718 shall be directed toward: NSWCPD at NavseaReviewedf718@us.navy.mil.

SHIPBUILDERS AND MARINE PAINTS AND COATINGS PRODUCT/PROCEDURE DATA SHEET

I. GENERIC TYPE AND DESCRIPTION: Two component, high solids, epoxy nonskid deck coating Date: 2/21/2025
Specification Number: MIL-PRF-24667
NOTE: For Type/Grade/Class/Application information see QPD-QPL-24667

II. MANUFACTURERS DATA:

(a) MANUFACTURER: Holcim Products and Solutions US LLC/ American Safety Technologies, 12055 Cutten Road, Houston TX 77066

(b) PRODUCT DESIGNATION: MS-5000G Extended Durability (MS510K) , MS510K is a kit containing Part A (MS510R) and Part B (MS510H)

(c) COLOR(S): Dark Gray FED-STD-595 Color Number 36076

(d) USES: Abrasive nonskid deck coating for critical and non-critical coated areas

(e) TECHNICAL SERVICE REPRESENTATIVE: 800-878-7876, Fax: 972-554-3939, Email: holcimacs.orders1@holcim.com, web site: www.holcimast.com

III. PROPERTIES:

(a) PERCENT VOLUME SOLIDS (ASTM D2697): 92+/-2 %

(b) PERCENT WEIGHT SOLIDS (ASTM D2369): 94+/-2 %

(c) FLASH POINT (ASTM D3278):

Part A: >102 °F (>39 °C)

Part B: >141 °F (>60.6 °C)

(d) WEIGHT PER VOLUME (ASTM D1475):

Part A: 16.8 lb/gal (2013 g/L)

Part B: 8.4 lb/gal (1006 g/L)

Mixed: 15.2lb/gal (1821 g/L)

(e) PERCENT EDGE RETENTION, IF REQUIRED BY APPLICABLE SPECIFICATION (N/A): Click here to enter text %

(f) SHELF LIFE: 12 Months

(g) VISCOSITY (ASTM D2196):

Part A : ~60000 cps @ 24 °C (75 °F)

Part B : ~37500 cps @ 24 °C (75 °F)

Mixed : ~55000 cps @ 24 °C (75 °F)

(h) PACKAGING: Part A: 4.1 gallons in a 6 ½ gallon pail, Part B: 0.9 gallons in a 1-gallon bag

(i) NUMBER OF COMPONENTS: 2

(j) GLOSS (ASTM D523): Flat GU

(k) STORAGE REQUIREMENTS: TEMPERATURE: 40 °F (4.4 °C) MIN. 100 °F (37.8 °C) MAX.

ADDITIONAL PAINT STORAGE REQUIREMENTS: 24 HOURS PRIOR TO MIX: TEMP. MIN. 60˚F (15.5°C) MAX. 80˚F (26.7°C)

(l) VOLATILE ORGANIC COMPOUNDS (VOCS- EPA TEST METHOD 24): 0.9+/-0.05 lb/gal (107+/-5 g/L)

(m) WEIGHT PER AREA OF DRY FILM AT 1 MIL THICKNESS: 0.0106 lb/sq. ft. (4.8 g/m²)

(n) SPECIAL PROPERTIES:Extended durability per the requirements of MIL-PRF-24667 Type V

IV. SURFACE PREPARATION MINIMUM REQUIREMENTS:

(a) INITIAL CLEANLINESS: Remove grease, oil, and dirt per SSPC-SP1 or other approved method.

(b) TOUCH-UP CLEANLINESS: N/A

(c) PROFILE (N/A): Click here to enter text mils MIN. Click here to enter text mils MAX.

(d) SPECIAL INSTRUCTIONS: N/A

(e) PRIMER REQUIREMENTS: AST MS-8CZ should be applied at a minimum of 3 mils DFT

(f) MAXIMUM ALLOWABLE CONDUCTIVITY (N/A):

Click here to enter text

(g) MAXIMUM DEGREE OF FLASH RUSTING ALLOWED: N/A

SPECIAL SAFETY PRECAUTIONS:

Read MSDS before use. Do not get in eyes, avoid contact with skin and clothing, and avoid inhalation of 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

(a) MIXING RATIOS BY WEIGHT: 9.54:1 (Part A to Part B)
BY VOLUME: 4.6:1 (Part A to Part B)

(b) INDUCTION TIME: N/A Minutes

(c) RECOMMENDED CLEANING SOLVENT (NO THINNING ALLOWED): NO THINNING ALLOWED / ONLY CLEAN UP: S-31 Solvent, S-426 Solvent, Isopropyl Alcohol, Aromatic Naphtha, MAK

(d) POT LIFE:Click here to enter text

2.5 Hours @ 50 °F (10 °C)
2.0 Hours @ 70 °F (21 °C)
1.5 Hours @ 90 °F (32 °C)

Graphs included on page: 4

(e) SPECIAL INSTRUCTIONS: Improperly mixed material will not cure properly. A Compound or Double Box Vortex Mixing blade may be used to perform both the pre-mix of the base (Part A) and combination of components (Part A and B) with the same paddle. Perform a pre-mix of the base material for at least 1 minute. Following pre-mix of base material (Part A), add hardener (Part B) to the base material (Part A). Once the hardener is introduced, continue mixing the combined contents of the kit for an additional 2-5 minutes or until a homogenous blend of both components is achieved and mixture presents a uniform color and appearance. Proper mixing techniques should include the movement within the kit with an up and down, side to side motion.

VI. APPLICATION:

(a) ENVIRONMENTAL LIMITATIONS:

SUBSTRATE TEMPERATURE: 50°F (10°C) MIN. 110°F (43.3°C) MAX.
AMBIENT TEMPERATURE: 55°F (12.8°C) MIN. 100°F (37.8°C) MAX.
DIFFERENCE ABOVE THE DEW POINT: 5 °F (2.8 °C)
MAXIMUM PERCENT RELATIVE HUMIDITY: 85 %

(b) FILM THICKNESS (SSPC PA2-73T): PER COAT:

N/A mils WET MIN. N/A mils WET MAX.
N/A mils DRY MIN. N/A mils DRY MAX.

TOTAL SYSTEM:

N/A mils DRY MIN. N/A mils DRY MAX.

(c) DRY TIMES (ASTM D1640):

Minimum Overcoat Window:

N/A Click to select time Interval @ Click here to enter text °F (Click here to enter text°C)
Click here to enter text Click to select time Interval @ Click here to enter text °F (Click here to enter text°C)
Click here to enter text Click to select time Interval @ Click here to enter text °F (Click here to enter text°C)

Maximum Overcoat Window:

N/A Click to select time Interval @ Click here to enter text °F (Click here to enter text°C)
Click here to enter text Click to select time Interval @ Click here to enter text °F (Click here to enter text°C)
Click here to enter text Click to select time Interval @ Click here to enter text °F (Click here to enter text°C)

Dry to Handle:

72 Hours @ 50 °F (10°C)
30 Hours @ 70 °F (21°C)
15 Hours @ 90 °F (32°C)

Dry to Service:

14 Days @ 50 °F (10°C)
7 Days @ 70 °F (21°C)
5 Days @ 90 °F (32°C)

Graphs included on page 4 or additional information included on page 3

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

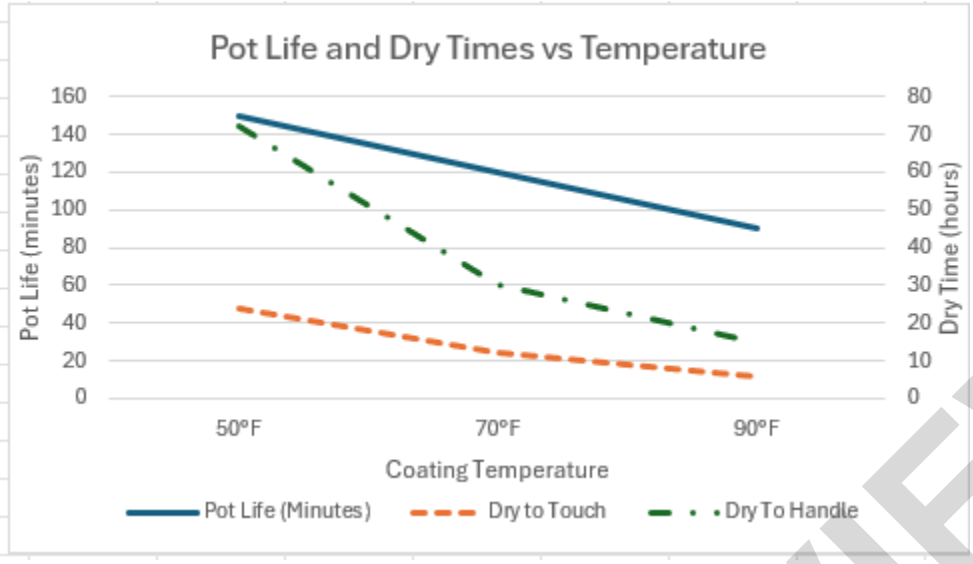
(e) SPECIAL INSTRUCTIONS: Coating to be applied at a spread rate of 20-30 square feet/gallon

IF OVERCOAT WINDOW HAS BEEN EXCEEDED FOR CRITICAL APPLICATIONS: If nonskid has not been applied within 72-hour window over cured primer, you must abrade and then solvent wipe per SSPC-SP1. Allow the solvent to fully evaporate before applying a mist coat of primer. Once the primer is sufficiently dried, apply nonskid coating. If more than 7 days have elapsed following observance of primer minimum cure schedule, remove primer to bare metal and re-apply new primer coat.

IF OVERCOAT WINDOW HAS BEEN EXCEEDED FOR NON-CRITICAL APPLICATIONS: If less than 7 days has elapsed since the application of the primer, a proprietary nonskid or color topping may be applied after visual inspection confirms the absence of grease, dirt, salts, or other surface contaminants on the primer surface. If surface contamination is suspected as

a result of visual inspection or for other reasons, the entire surface shall be cleaned in accordance with SSPC-SP 1. Apply the proprietary nonskid or color topping after surfaces have completely dried and/or solvent has completely evaporated.

GRAPHS FOR POT LIFE AND CURE TIMES:



ADDITIONAL DATA/INSTRUCTIONS:

I. GENERIC TYPE AND DESCRIPTION: N/A

II. MANUFACTURERS DATA: N/A

III. PROPERTIES: N/A

IV. SURFACE PREPARATION MINIMUM REQUIREMENTS: N/A

V. MIXING PROCEDURES: N/A

VI. APPLICATION: N/A