

SHIPBUILDERS AND MARINE ASTM F-718

PAINTS AND COATINGS

PRODUCT / PROCEDURE DATA SHEET NO. **MS-7C**

Last Updated:

5-25-2005

I. GENERIC TYPE AND DESCRIPTION: Epoxy - Polyamide Based Primer Specification Number (If Applicable): MIL-PRF-24667A/B, MIL-D-24613, MIL-D-3134, MIL-D-3135	
II. MANUFACTURERS DATA:	
(a) MANUFACTURER: ITW American Safety Technologies	(b) PRODUCT DESIGNATION: MS-7C Metal Primer
(c) COLOR(S): Gray or Buff	(d) USES: Primer to be used with AST's QPL Interior and Exterior Non-Slip Decking Products.
(e) TECHNICAL SERVICE REPRESENTATIVE: (Include Telephone No.): 800-631-7841/Fax: 973-403-1108 E-mail: info@americansafetytech.com	(f) NOT RECOMMENDED FOR:
III. PROPERTIES:	
(a) % VOL. SOLIDS (ASTM D2697): 65 ± 1%	(b) FLASH POINT (ASTM D93): >102F (39C) OR (ASTM D56): >102F (39C)
(c) WT. PER GAL. (FTMS 141_a 4184.1): 12.5 ± 0.3 lbs.	SHELF LIFE: 1 Year
(e) VISCOSITY (FTMS 141_a 4281): ASTM D-562 88-108 KU (Thixotropic) Brookfield Viscosity = 3500-5500 cps	(f) PACKAGING: 5 gals in 6½ gal. pails
(g) NUMBER OF COMPONENTS: 2	(h) GLOSS (ASTM D523): 60-17-18
(i) STORAGE REQUIREMENTS: 24 hrs. Prior to mixing & application	TEMP. MIN. 40F MAX. 100F (Long Term) TEMP. 50F 90F
<p>SPECIAL SAFETY PRECAUTIONS:</p> <p>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.</p> <p>OTHER PRECAUTIONS: Avoid extreme heat - keep away from flame or other ignition source.</p>	
IV. SURFACE PREPARATION MINIMUM REQUIREMENTS (USE SPECIFIC STANDARD NUMBER(S):	
(a) INITIAL - Remove grease, oil, and dirt (SSPC-SP1) or other approved method followed by grit or shot blasting.	
(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-SP11 is recommended.	
(c) PROFILE: - Abrasive Blasting UHP Water Jetting	MIN. <u>SSPC-10/NACE 2</u> MAX. <u>SSPC-5/NACE 1</u> <u>NACE5/SSPC SP12/ WJ-2/NV-2</u>
NOTE: Cleaning via UHP-WJ does not create an anchor tooth profile. The substrate may require abrasive blasting in order to produce an acceptable minimum or specified anchor tooth profile prior to application of primer.	
(d) SPECIAL INSTRUCTIONS - Substrate Anchor Tooth Profile: A minimum of 2 mils anchor tooth profile is required for all areas designated to receive nonskid on both critical and non-critical decks. An anchor tooth profile depth of 3 – 4.5 mils is required for the application of nonskid coatings systems on Aircraft Carrier flight and hangar decks. Application of nonskid coatings systems on substrates which exhibit anchor tooth profile depths greater than 7 mils deep is not recommended. PRIMER REQUIREMENTS (IF APPLICABLE): Should be applied minimum 2-3 mils, DFT, above the averaged anchor tooth profile.	
(e) For interior decking products applied over MS-7C Primer: if the surface has become contaminated, ensure the area is clean prior to over coating. A tack coat is not normally required provided the next step in the proprietary system is not delayed more than 7 days at 70°F (21°C). After 7 days, the primed surface must be mechanically abraded or brush blasted prior to application of a tack coat.	

- V. MIXING PROCEDURE: **NOTE: Incorrectly mixed material will not cure properly.**
- (a) MIXING RATIO BY WEIGHT - 12.5: 1 (Base to hardener)
 BY VOLUME - 7.7: 1 (Base to Hardener)
- (b) INDUCTION TIME - None
- (c) RECOMMENDED SOLVENT - THINNING - Not Authorized
 CONFINED AREAS - N/A
 NON CONFINED AREAS - N/A
 CLEAN UP - 1) Propylene Glycol Monomethyl Ether (PM Solvent)
 2) Aromatic Naphtha
 3) N-Methyl Amyl Ketone (MAK)
- (d) THINNING REQUIREMENTS (RATIO) - Not Applicable
- (e) POT LIFE - 2 Hrs @ 90° F (32C)
4 Hrs @ 70° F (21C)
8 Hrs @ 50° F (10C)
- (f) **SPECIAL INSTRUCTIONS** - Pre-mix Part A, base component, to ensure all materials which may have settled during storage are lifted from the bottom. **Mix Part A and Part B components together for a minimum of 3 to 5 minutes ensuring the mixed material assumes a uniform color and appearance.**

VI. APPLICATION: **NOTE: Environmental conditions must be taken into consideration when determining curing time of epoxy coatings. Cooler temperatures extend curing times, warmer temperatures shorten curing times.**

- (a) ENVIRONMENTAL LIMITATIONS: Do not apply when surface temperature is under 40°F or over 140°F.
 AIR TEMP. MIN. 40°F MAX. 100°F
 % RELATIVE HUMIDITY MIN. 0% MAX. 85%F
- (b) FILM THICKNESS (SSPC PA2-73T) WET MIN. 3 mils WET MAX. 10 mils
 DRY MIN. 2 mils DRY MAX. 7 mils
- (c) DRY TIMES (ASTM D1650)

One Coat of Primer with or without Stripe Coats to RECOAT with NON-SKID

MIN. 6 Hrs @ 90°F (32C) @ 50 % R.H.
 MIN. 12 Hrs @ 70°F (21C) @ 50 % R.H.
 MIN. 18 Hrs @ 60°F (16C) @ 50 % R.H.
 MIN. 24 Hrs @ 50°F (10C) @ 50 % R.H.
 MAX. 180 Hrs @ 50°F (10C)
 MAX. 180 Hrs @ 70°F (21C)
 MAX. 72 Hrs @ 90°F (32C)

- (d) **EQUIPMENT REQUIREMENTS** (INCLUDE PREFERRED, SUITABLE AND NOT SUITABLE REQUIREMENTS): Spray, Roller or Brush. 1/2 HP mechanical mixer and suitable mixing blade

IMPORTANT – When using multiple coats of primer for additional corrosion resistance it is recommended to use additional drying times between coats to ensure a full dry. **A two coat primer process is not recommended for CV/CVN tail hook impact areas.**

OPTIONAL – Stripe coating is intended for filling voids, spots and porous metal on deck edges, edges of deck protrusions, and weld beads. Use a brush or roller to apply the stripe coat. The stripe coat may be applied to the prepared metal surface or applied over a full primer coat. The primer may coat the stripe coat while wet dry or dry to touch. **NOTE:** “while wet” is prohibited by NAVSEA for all products covered under MIL-PRF-24667A/B QPL’s

SPECIAL INSTRUCTIONS: 1) Do not apply when surface temperature is under 40°F or over 140°F. 2) At time of application, in accordance with MIL-PRF-24667A/B, 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.

NOTE: MS-7C is formulated to be applied within the parameters listed on this document. MIL-PRF-24667A/B QPL applications may adjust the environmental and application procedures recommended by this ASTM-F718.