

## SHIPBUILDERS AND MARINE PAINTS AND COATINGS PRODUCT/PROCEDURE DATA SHEET

MS-1600

CONTINUATION SHEET USED:  YES  NO

Date: 13 Mar 2014

I. GENERIC TYPE AND DESCRIPTION: Flexible Epoxy Intermediate Membrane / Base Coat for Color Flake Decking System  
Specification Number: MIL-PRF-24667 / MIL-PRF-24613

## II. MANUFACTURERS DATA:

- (a) MANUFACTURER: ITW Polymers Sealants North America, 111 S Nursery Road, Irving, TX 75060
- (b) PRODUCT DESIGNATION: American Safety Technologies MS-1600
- (c) COLOR(S): Dark Gray, Dark Blue, Navy Blue
- (d) USES: Intermediate Leveling Membrane / Base Coat
- (e) TECHNICAL SERVICE REPRESENTATIVE  
(Include Telephone Number): 800-878-7876, Fax: 972-554-3939, Email: [orders1@itwsealants.com](mailto:orders1@itwsealants.com), web site: [www.itwast.com](http://www.itwast.com)
- (f) NOT RECOMMENDED FOR: CV/CVN Landing Area

## III. PROPERTIES:

- (a) % VOLUME SOLIDS (ASTM D 2697): 96%
- (b) % WEIGHT SOLIDS (ASTM D 1475): 97 %
- (c) FLASH POINT (ASTM D3278): > 102°F (39°C)
- (d) WEIGHT PER VOLUME (FTMS 141a4184.1): 12.3 ± 0.2 lbs. per gallon
- (e) % EDGE RETENTION: N/A
- (f) SHELF LIFE: 1 Year
- (g) VISCOSITY (ASTM D 2196): COMPONENT A: N/A  
COMPONENT B: N/A  
MIXED: 1500 - 6000 cps at 75°F (Brookfield viscosity)/ 75-95 KU (ASTM D 2196)
- (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. 70°F MAX. 80°F  
  
ADDITIONAL PAINT STORAGE REQUIREMENTS: Colder temperatures will extend cure time
- (l) VOLATILE ORGANIC COMPOUND (VOC- EPA TEST METHOD 24): 0.4 lbs per gallon (50 grams/liter)
- (m) WEIGHT OF DRY FILM (WEIGHT/FT<sup>2</sup> AT 1 MIL THICKNESS): 0.0076 lbs / 3.49 grams
- (n) SPECIAL PROPERTIES: N/A

- 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 (INCLUDE METHOD USED):                   MIN. NA                   MAX. N/A
  - (d) SPECIAL INSTRUCTIONS:
  - (e) PRIMER REQUIREMENTS (IF APPLICABLE): AST MS-7CZ. Should be applied minimum 2 mils, DFT. For wood use BC-100.
  - (f) MAXIMUM ALLOWABLE CONDUCTIVITY (BRESTLE PATCH METHOD): N/A
  - (g) MAXIMUM DEGREE OF FLASH RUSING 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: 8.1:1           (Base to hardener)  
  BY VOLUME: 5.0:1           (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 and S-31 Solvents
  - (d) THINNING REQUIRMENTS (RATIO): NO THINNING ALLOWED
  - (e) POT LIFE:
 

<u>0.5</u> Hr(s) @	<u>90</u> °F (32°C)
<u>1</u> Hr(s) @	<u>70</u> °F (21°C)
<u>2</u> Hr(s) @	<u>50</u> °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 2 minutes. Following pre-mix of base material; add the hardener to the base material and continuing to mix both components. Once all the hardener is introduced, continue mixing the combined contents of the kit for minimum 3 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 minimum 3 minutes. Slowly add the hardener while continuing mixing. Once all the hardener has been introduced, continue mixing the combined contents of the kit for minimum 3 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 – Improperly mixed material will not cure properly.**

ASTM F 718

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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. 55°F                      MAX. 100°F

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

PER COAT: N/A  
TOTAL SYSTEM:  
DRY MIN. 63 Mils                      DRY MAX. 125 Mils  
SPREAD RATE: 125 ft²/5 gal kit @ 63 Mils

(c) DRY TIMES (ASTM D 1640):

Surface Temperature	50°F (10°C)	70°F (21.1°C)	90°F (32.2°C)
Recoat	24 Hrs	16 Hrs	8 Hrs
Dry to Handle*	96 Hrs	48 Hrs	24 Hrs
For Immersion	180 Hrs	96 Hrs	72 Hrs

\* Minimum dry time before foot traffic.

**NOTE:** Spread rate per gallon is subject to variation due to environmental conditions and applicator technique.

(d) EQUIPMENT REQUIREMENTS (INCLUDE PREFERRED, SUITABLE, NOT SUITABLE REQUIREMENTS): Roller with extended handle; ¾" nap, 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:

**NOTE:** 1) Do not apply when deck temperature is under 40°F or over 110°F. 2) At time of application, in accordance with MIL-PRF-24667 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-1600 is formulated to be applied within the parameters listed on this document. MIL-PRF-24667 / MIL-PRF-24613 QPD applications may adjust the environmental and application procedures recommended by this ASTM F-718.

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