

SHIPBUILDERS AND MARINE PAINTS AND COATINGS PRODUCT/PROCEDURE DATA SHEET

CONTINUATION SHEET USED: \boxtimes YES \square NO Date: 26 September 2016

I. GENERIC TYPE AND DESCRIPTION: MS-7CZ Epoxy Polyamide Based Primer

Specification Number: MIL-PRF-24667

NOTE: For Type/Grade/Class/Application information see QPL-24667

II. MANUFACTURERS DATA:

- (a) MANUFACTURER: ITW Polymers Sealants North America, 111 S Nursery Road, Irving, TX 75060
- (b) PRODUCT DESIGNATION: MS-7CZ / MS703R Gray / MS700R Buff / MS704R Light Gray / MS790H Part B
- (c) COLOR(S): Gray, Buff, Light Gray
- (d) USES: Primer to be used with American Safety Technologies Exterior and Interior Decking Systems
- (e) TECHNICAL SERVICE REPRESENTATIVE (Include Telephone Number): 800-878-7876, Fax: 972-554-3939, Email: orders1@itwsealants.com, web site: www.itwast.com
- (f) NOT INTENDED FOR USE ON: N/A

III. PROPERTIES:

- (a) % VOLUME SOLIDS (ASTM D2697): 73 ± 1%
- (b) % WEIGHT SOLIDS (ASTM D2369): 84 ± 2%
- (c) FLASH POINT (ASTM D3278): Part A > 102°F (39°C) Part B > 105°F (40°C)
- (d) WEIGHT PER VOLUME (ASTM D1475): 12.6 lbs. per gallon
- (e) % EDGE RETENTION (IF REQUIRED BY APPLICABLE SPECIFICATION LIST TEST METHOD USED): N/A
- (f) SHELF LIFE: 1 Year
- (g) VISCOSITY (ASTM D2196): PART A: 2,000 4,000 cps (Brookfield viscosity)

PART B: 500 – 900 cps (Brookfield viscosity)

MIXED: 2000 - 3000 cps (Brookfield viscosity)

- (h) PACKAGING: Part A: 3 gallons in 6 ½ gallon pail, Part B: 1 gallon in a 1.3 gallon (5 liter) bag
- (i) NUMBER OF COMPONENTS: 2
- (j) GLOSS (ASTM D523): N/A
- (k) STORAGE REQUIREMENTS: TEMP. MIN. 40°F MAX. 100°F

24 HOURS PRIOR TO MIX: TEMP. MIN. 50°F MAX. 90°F

- (I) VOLATILE ORGANIC COMPOUND (VOC- EPA TEST METHOD 24): 240 g/l (2.0 lb/gal)
- (m) WEIGHT PER AREA OF DRY FILM PER SQ. FT. AT 1 MIL THICKNESS: 3.95 4.27 grams (0.0087 0.0094 lbs).
- (n) SPECIAL PROPERTIES: Anti-Corrosive, Zinc Complex Epoxy Primer (Contains 0% Free Zinc Metal).

IV. SURFACE PREPARATION MINIMUM REQUIREMENTS:

(a) INITIAL: Remove grease, oil and dirt (SSPC-SP1) or other approved method followed by abrasive blasting or UHP water jetting.

MIN: SSPC SP-10/NACE 2



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UHP Water Jetting - SSPC-SP WJ-2/NACE WJ-2

- (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 (ASTM D4417 Method B or C): MIN. 3 MILS MAX. 6 MILS
- (d) SPECIAL INSTRUCTIONS: Application of nonskid coating systems on substrates which exhibit anchor tooth profile depths greater than 7 mils deep is not recommended.
- (e) PRIMER REQUIREMENTS: N/A
- (f) MAXIMUM ALLOWABLE CONDUCTIVITY (BRESLE PATCH METHOD ISO 8502-9): 70μS/cm for non submersible structures
- (g) MAXIMUM DEGREE OF FLASH RUSTING ALLOWED: LIGHT (NACE WJ-2/SSPC-SP WJ-2)

SPECIAL SAFETY PRECAUTIONS:

CAUTIONS TO BE TAKEN IN HANDLING AND STORING: WARNING! IRRITANT, **Read MSDS before use.** Do not get in eyes, avoid contact with skin and clothing, and 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: 5.75:1 (Part A to Part B)
 BY VOLUME: 3.0:1 (Part A to Part B)
 - (b) INDUCTION TIME: N/A
 - (c) RECOMMENDED SOLVENT CLEAN UP: S-31 Solvent, S-426 Solvent, Isopropyl Alcohol, Aromatic Naphtha, MAK
 - (d) POT LIFE:

2 Hr(s) @ 90°F (32°C) 4 Hr(s) @ 70°F (21°C) 6 Hr(s) @ 50°F (10°C)

(e) SPECIAL INSTRUCTIONS: Pre mix Part A, base component, to ensure all materials which may have settled during storage are lifted from the bottom. Using a clean mixing paddle and adequate mechanical mixer mix Part A and Part B components together for a minimum of 3 minutes or until the mixed material assumes a uniform color and appearance. **Warning-Improperly mixed material will not cure properly.**

VI. APPLICATION:

(a) ENVIRONMENTAL LIMITATIONS:

SUBSTRATE SURFACE TEMPERATURE: MIN. 50°F MAX. 120°F AMBIENT TEMPERATURE: MIN. 50°F MAX. 100°F MINIMUM SUBSTRATE TEMPERATURE DIFFERENCE ABOVE THE DEW POINT: 5°F MAXIMUM REPORTS BELATIVE LILIMIDITY: 95°F

MAXIMUM PERCENT RELATIVE HUMIDITY: 85%

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

WET MIN. 3 Mils WET MAX. 10 Mils DRY MIN. 3 Mils DRY MAX. 9 Mils

TOTAL SYSTEM:

DRY MIN. N/A DRY MAX. 14 Mils



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(c)	DRY TIMES (ASTM D	1640):				
` '	Surface Temperature	50°F	70°F (21.1°C)	90°F (32.2°C)	120°F (48.8°C)	
	Overcoat - Min*	6 Hrs	2 Hrs	1 – 1.5 Hrs	45 – 60 Min	
	Overcoat - Min**	30 Hrs	12 Hrs	6 Hrs	3 Hrs	
	Overcoat - Max	28 Days	14 Days	7 Days	3 Days	
	Cure to Full Service	14 Days	7 Days	5 Days	3 Days	
	Recoat-Reactivation***	28 Days	14 Days	7 Days	3 Days	
	* Overcoat minimum fo	r primer to pr	imer / stripe coat			
	**Overcoat minimum for	r non-skid or	color topping over	r primer		
	****Reactivation by sanding and tack coat					
(4)	expected to fall below sapplications. Monitor st that may cause solvent (post application) are a assist in determining ar	50°F for an eximple coats es entrapment ffected by da n approximate	ktended period, it in the pecially at weld be and may result in hy/night cure tempere overcoat time with the period of the perio	is suggested to use eads to prevent ex intercoat delamina eratures and expo- thin a 24 hour peri	culations for MS-7CZ. When temperatures are e MIL-PRF-24667 Type VIII MS-11CZ for primer cessive wet film builds (combined films > 14 mils) ation. Note: Changes in environmental conditions sure to sun light. Recorded temperature data will iod utilizing cure graph provided.	
(d)	EQUIPMENT REQUIR	EIVIEIN I S. SP	oray, Roller, or Bro	isii, /2 HF illechan	ilical mixer and sultable mixing blade.	
(e)	SPECIAL INSTRUCTIONS: A two coat primer system is not recommended for CVN tail hook impact areas.					
	IF OVERCOAT WINDOW HAS BEEN EXCEEDED FOR CRITICAL APPLICATIONS RECEIVING NONSKID: Please refer to NAVSEA Standard item 009-32 and NSTM Chapter 634 guidelines for secondary surface preparation.					
	IF OVERCOAT WINDOW HAS BEEN EXCEEDED FOR CRITICAL APPLICATIONS NOT RECEIVING NONSKID: This includes zone tie-in areas where the primer is to be overcoated with itself (up to 12 inches), borders, aircraft securing fitting deck edge coaming, drains and fixtures. If less than 7 days has elapsed since the application of the primer coat, perform a complete cleaning by solvent wipe down of the primed area to be overcoated. After day 7 and up to day 30, if the next coat has not been applied, the entire surface shall be cleaned in accordance with SSPC-SP1. Ensure the surface has fully dried following solvent cleaning, and then lightly abrade with abrasive blast, power sanding, or hand sanding using 80-120 grit. Perform a solvent re-clean of the abraded surface and allow any visible traces of solvent to fully evaporate. The MS-7CZ primer or color topping may be applied after visual inspection confirms the absence of surface containments following solvent cleaning and after ensuring surfaces have completely dried and all solvent has evaporated.					
	since the application of overcoated. The MS-70 surface containments for evaporated. After day 7 accordance with SSPC abrasive blast, power s allow any visible traces	the primer or CZ primer, no collowing solve and up to da -SP1. Ensure anding or by of solvent to times for app	oat perform a comonskid or color toplent cleaning and a ay 30, if the next ce the surface has fand sanding usinfully evaporate, a	plete cleaning by sping may be applied applied applied applied for a property of the property	AL APPLICATIONS: If less than 7 days has elapsed solvent wipe down of the primed area to be ed after visual inspection confirms the absence of aces have completely dried and all solvent has applied, the entire surface shall be cleaned in g solvent cleaning and then lightly abrade with rform a solvent re-clean of the abraded surface and 2-3 mils/ 50-75 microns WFT) of MS-7CZ primer. primer coat shall be those indicated within the Dry	
ADDIT	ADDITIONAL DATA/INSTRUCTIONS:					
ı. IVIAI	I. MANUFACTURERS DATA: N/A					

III. PROPERTIES: N/A



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IV. SURFACE PREPARATION MINIMUM REQUIREMENTS: 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.
V. MIXING PROCEDURES: N/A
VI. APPLICATION REQUIREMENTS: NOTE: Dry times are a function of humidity, ventilation, and temperature. Dry time information provided is to be used as a guideline only. When substrate temperatures fall below 50°F after application, the MS-7CZ Primer system dry time is retarded requiring additional dry time. Applicators must take this into consideration before the next coating process is started in allowing for sufficient dry time.
For interior decking products applied over MS-7CZ: 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 on the MS-7CZ primer 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 tack coat.
STRIPE COAT PROCEDURES – 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 directly to the prepared metal surface before application of full primer coat. Please refer to NAVSEA Standard Item 009-32 Guidelines for stripe coating. If stripe coat is applied following the base coat application or prior to the application of an intermediate (barrier) coat, the stripe coat must be allowed to dry to its full minimum cure time before additional coat is applied. If a stripe coat is applied following the installation of an intermediate (barrier) coat, the stripe coat must be allowed to dry to its full minimum cure time before additional top coat is applied.
SPECIAL INSTRUCTIONS: (1) Do not apply primer when surface is under 50°F or over 120°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) Requirement: Surface temperature must be at least 5°F above the dew point during application.
NOTE: MS-7CZ 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 F-718.
WARRANTY DISCLAIMER: The technical data supplied herein has been compiled for the applicator's assistance and guidance and 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.