
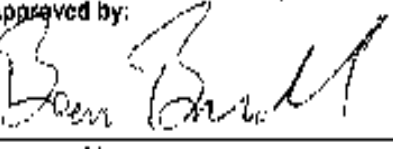


**PRESERVATION PROCESS INSTRUCTION (PPI) for  
COSMETIC POLYMERIC DECK COVERINGS  
TYPE II, CLASSES 1 & 2 for WET and DRY INTERIOR SPACES  
to be used in conjunction with  
CORE PPI 63101-000 with a  
Cleanliness Level of SSPC-SP-11 (Minimum) Surface Preparation**

AGENCY	Approved by:	DATE
<b>NAVSEA 05P23 Warrant Holder</b>		10/28/08
<b>NAVSEA 05P23 Director</b>		10/28/08
<b>CFFC (if required)</b>	Approved by:	

1. **SCOPE:**

1.1 Cleaning, Surface Preparation and Painting Requirements for Cosmetic Polymeric Deck Covering Type II, Classes 1 & 2 in Wet and Dry Interior Spaces.

1.2 **RISK STATEMENT:**

1.2.1 Risk for installation. If proper surface preparation and application procedures are not adhered to, coating system failure can occur within 3-6 months.

1.2.2 Risk for curing. If overcoat window timeframes are not adhered to, coating system failure is possible within the first 6-9 months of application.

1.2.3 If the PPI checkpoint criteria are met, the following table provides service life expectancy for the listed systems:

Coating System Life Expectancy:

Surface Preparation Method	System	Life Expectancy
Cleanliness Level of SSPC-SP-11 (Minimum)	Type II, Class 1 (No qualified products listed on QPL-24613)	5 – 8 years with sealing as necessary
	Type II, Class 2	

2. **REFERENCES:**

2.a. Systems and Specifications, Steel Structures Painting Council, Volume 2

2.b. SSPC-PA 2, Measurement of Dry Coating Thickness with Magnetic Gages

2.c. MSDS, NAVSEA approved manufacturer's ASTM F 718 and Product Specification/Technical Data sheets, Shipbuilders and Marine Paints and Coating Product / Procedure Data Sheet, and the manufacturer's Application Specification for the Coating/Covering System Being Applied.

Prime Coat: ----- MIL-PRF-23236, Type VII, Class 17

Preferred Cosmetic Polymeric System: Type I, Class 2, SS 1280, One-Step Light weight Polymer Underlayment (system installed without primer and without a membrane) as listed on QPL-3135. Cosmetic Polymeric Deck Covering System approved materials meeting requirements of MIL-PRF-24613.

Other Cosmetic Polymeric Systems: Type I, Class 2, SS 1290, Ultra-Light Weight Underlayment (system installed with primer and without a membrane) as listed on QPL-3135. Cosmetic Polymeric Deck Covering System approved materials meeting requirements of MIL-PRF-24613. Type I, Class 2, SS 1290, Ultra-Light Weight Underlayment (system installed with primer and with a membrane) as listed on QPL-3135. Cosmetic Polymeric Deck Covering System approved materials meeting requirements of MIL-PRF-24613.

2.d. ASTM D 4417, Method C, Standard Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel

2.e. OSHA 29 CFR 1915 Subparts C and Z

2.f. SSPC-VIS-3 Visual Standard for Power and Hand Tool Cleaned Steel

2.g. Naval Ships' Technical Manual Chapter 631

2.h. ISO 8502-3, Preparation of steel substrates before application of paint and related products – tests for the assessment of surface cleanliness – Part 3: Assessment of dust on steel surfaces prepared for painting (pressure sensitive tape method)

3. **APPENDICES:** (REFER TO CORE PPI EXCEPT FOR APPENDICES 5, 6, and 10)
4. **REQUIREMENTS:** (REFER TO CORE PPI EXCEPT FOR THE FOLLOWING)
- NOTE: **A NEW COSMETIC POLYMERIC DECK SYSTEM WILL NOT BE INSTALLED ON TOP OF ANY EXISTING DECK SYSTEM. EXISTING DECK SYSTEM MATERIALS MUST BE COMPLETELY REMOVED DOWN TO THE BARE SUBSTRATE.**
- 4.3.1 REQUIREMENTS FOR COATED AREAS. Coating systems shall be applied by certified painters. Checkpoints and final inspections shall be signed off by certified coating inspectors.
- 4.3.2 PAINTER CERTIFICATION. The Implementing Contractor shall maintain a current certification in accordance with the Society for Protective Coatings (SSPC) QP-1 program for the duration of the project (Certification will be required commencing 01 October 2006). The implementing contractor shall maintain a certification program for painters working on the project IAW SSPC-C-7 and NSTM 631, Section 11.5. The company shall provide adequate records verifying the completion and currency of training for each painter involved in surface preparation and application of the coating. Documentation shall be maintained verifying that only certified painters are used for preservation work. Training shall include all paint application techniques and procedures appropriate to the surface preparation and coating materials used.
- 4.3.4 COATING INSPECTOR RESPONSIBILITIES: Coating inspectors are responsible for providing reasonable confidence that material storage, surface preparation, paint and cosmetic polymeric system application and curing are accomplished IAW the manufacturer's requirements. These responsibilities require the coating inspector to: inspect material storage facilities; ensure all inspection equipment requiring calibration certification is certified under organization metrology calibration programs; perform in-process inspections of surface preparation, painting and verify successful completion of checkpoints in the application process; and inspect and accept or reject final paint systems.
- 4.3.5 IN-PROCESS INSPECTIONS: The Responsible Government Representative shall be given a minimum of 4 hours prior notice and shall perform an inspection of each coated area when the following checkpoints are reached: pre-surface preparation & cleaning, contamination containment and masking, surface preparation, paint storage area, prime coat of paint applied, free flow test, positive drain test and area ready for final inspection. The Responsible Government Representative is also required to examine all data maintained by the paint foremen concerning environmental conditions, surface cleanliness, surface profile and paint thickness. Data shall be verified, depending on the checkpoint in question, including surface cleanliness, surface profile, dry film thickness and workmanship. Environmental data, such as temperatures, relative humidity and dew point need only be verified if the inspector is doubtful of the recorded values. Deficiencies in personnel training, certification, record maintenance, equipment maintenance or any matter that is not IAW good painting practice shall be recorded. The coating inspector shall verify the successful completion of each checkpoint and sign and date the applicable spaces on Appendix 6.
- 4.8 The requirement to monitor environmental conditions (both manually or via data logger) may be waived in all spaces where shipboard environmental controls are properly operating and controlling temperature and humidity in the space.
- 4.9 TEMPERATURES TO BE MAINTAINED FOR PAINT/COSMETIC POLYMERIC SYSTEMS: Immediately prior to application of each layer of the cosmetic polymeric system the substrate surface temperature shall be taken. Readings shall be taken in five randomly chosen locations on the deck layer within the space and the highest and lowest surface temperatures measured recorded in Appendix 1. Additionally, readings shall be taken in five randomly chosen locations on the deck layer within the space and the highest and lowest surface temperatures measured recorded prior to resuming application of a layer of the tile system when there has been a temporary work interruption. Application of the next layer of the cosmetic polymeric system shall not commence (or recommence after a temporary work interruption) until all recorded surface temperature readings are within the required range as specified in Ref. 2.c and NSTM 631, Section 6.3. If any reading is outside of the required range, the contractor must take additional action to control the temperature in the space and return the surface temperature readings to within the required range. Additional readings shall be taken a minimum of hourly until the readings are returned to within the required range. If inconsistencies between the acceptable ambient and surface temperature ranges in Ref. 2.c and NSTM 631, Section 6.3 exist, the more stringent requirements shall be followed. If required

ambient and surface temperatures are not provided or are unclear, contact Contracting Regional Maintenance Center for resolution.

**5. PRE-SURFACE PREPARATION:** (REFER TO CORE PPI EXCEPT FOR THE FOLLOWING)

5.1 Remove deck strainer plates and retain for reinstallation as applicable. Provide adequate protection to deck drains(s) opening to prevent contamination. Log and provide identification tags for removed strainer plates.

5.2 Remove existing deck covering and underlay down to intact primer using power tools, including pneumatic air chisels. Care shall be taken as to prevent damage to existing deck plating. For Aluminum decks, grinders and sanders used in deck covering and underlayment removal shall be equipped with 16-grit aluminum oxide abrasive pads. Abrasive materials (pads, belts) must not have been previously used to prepare copper nickel metal for painting or to remove copper base anti-fouling paints. Gouges and cuts into the plating shall be reported immediately to the Contracting Regional Maintenance Center.

5.3 **STRUCTURAL INSPECTION:** Prior to commencement of work, the government shall provide an authorized representative to conduct a structural inspection for the entire area to be prepared. Heavily rusted or corroded areas, damaged metal, and holes in the structure or piping shall be documented and provided to both ship's force and the Contracting Regional Maintenance Center to determine if further structural evaluation or NDT is warranted, and for possible repair before surface preparation.

**5.3.1 DECK DRAIN COLLAR INSTALLATION (Applicable to wet spaces only):** Around deck drains a 3/8-inch high stainless steel 316 L collar shall be **attached and sealed to the deck with epoxy compound conforming to MIL-PRF-24176** around the outside of the outer circumference of the deck drain body.

**5.3.2 DECK DRAIN SEALANT INSTALLATION (Applicable to wet spaces only):** In the area between the cosmetic polymeric and the collar joint install an approved epoxy grout or a NAVSEA approved polysulfide or polyurethane sealant around the entire circumference of the deck drain to the cosmetic polymeric interface.

**5.3.3 FLUID SYSTEM PIPE COLLAR INSTALLATION:** If the fluid system pipe that penetrates a deck does not have an existing deck sleeve installed for the pipe penetration a stainless steel 316 L collar shall be seam welded to the deck around the outside of the outer circumference of the pipe. The distance from the inside of the collar to the outside of the pipe shall be a minimum of 2 inches where pipe installation allows. In areas where this is not possible the distance of the collar shall be as far from the pipe as space allows. The height of the collar shall be 2 inches above the finished deck surface.

5.4 **PRE-SURFACE CONDITIONING:** Before surface preparation the Contracting Regional Maintenance Center shall have all welds, protrusions, projections and spikes ground smooth and flush with the deck; pits in the welds shall be ground out; all weld splatter shall be removed.

5.5 **DEGREASE / FRESH WATER WASH DOWN:** Prior to removal of the remaining intact primer for final surface preparation, remove all surface contaminants such as grease and oil (hydrocarbons), loose rust, chlorides and all other contaminants. Where required, spot degreasing shall be performed on affected areas with solvent cleaning compound (MIL-C-22230) followed by freshwater rinsing. Use vacuum to remove standing water followed by an adequate period of time to allow the surface to dry prior to surface preparation. SSPC-SP-1 requirements shall be met. Oily wastes and chemicals shall be disposed of per local and State instructions.

5.6 **CHECKPOINT (Pre-Surface Preparation Inspection):** (REFER TO SECTION 5.4 OF CORE PPI)

**6. SURFACE PREPARATION:** (REFER TO CORE PPI EXCEPT FOR THE FOLLOWING)

**NOTE: CONTRACTING REGIONAL MAINTENANCE CENTER SHALL DESIGNATE ONE OF THE FOLLOWING METHODS TO ACHIEVE A CLEANLINESS LEVEL OF SSPC-SP-11 (MINIMUM) SURFACE PREPARATION:**

**1) POWER TOOL CLEANING TO BARE METAL**

**2) ABRASIVE BLASTING WITH ABRASIVE SPONGE MEDIA**

6.2 **Not Applicable to this PPI**

6.3 Not Applicable to this PPI

6.4 POWER TOOL CLEAN ENTIRE SURFACE TO BARE METAL:

**NOTE: GRINDERS AND SANDERS MAY BE USED TO PREPARE COATINGS OR REMOVE PAINT BUT ARE NOT AUTHORIZED FOR SURFACE PREPARATION.**

6.4.1 Accomplish the overhaul surface preparation requirements of SSPC-SP-11 and Table 631-11-1, (Surface Preparation), for the location/area being prepared. Minimum requirement is SSPC-SP-11.

6.4.2 Surface preparation accomplished using a surface preparation device such as a disk sander or power wire wheel that burnishes, polishes or smooths the surface is not authorized. A minimum average surface profile of 2.0 mils is required, with no individual reading below 1.0 mil.

6.4.3 Feather edges of well-adhered paint in adjacent areas intended to remain after cleaning.

6.5.2.1 Not Applicable to this PPI

6.5.2.2 Not Applicable to this PPI

**7. PAINTING REQUIREMENTS:** (REFER TO CORE PPI EXCEPT FOR THE FOLLOWING)

**NOTE: CONTRACTING REGIONAL MAINTENANCE CENTER WILL SPECIFY COSMETIC POLYMERIC SYSTEM AND UNDERLAYMENT TO BE INSTALLED (PREFERRED OR OTHER SYSTEM).**

**TO MAINTAIN PROPER SURFACE CONDITIONS AFTER COMPLETION OF THE SURFACE PREPARATION CHECKPOINT METHODS SUCH AS USE OF DEHUMIDIFICATION EQUIPMENT AND SURVEILLANCE/MONITORING OF THE PREPARED SURFACE SHOULD BE EMPLOYED. COATING APPLICATION SHALL START WITHIN 1 HOUR AFTER SURFACE PREPARATION CHECKPOINT COMPLETION AND ACCEPTANCE. COATING APPLICATION SHOULD BE CONTINUOUS THROUGH COMPLETION OF THE AREA TO BE COATED. IF COATING APPLICATION HAS NOT STARTED WITHIN 1 HOUR OF SURFACE PREPARATION CHECKPOINT COMPLETION THE SURFACE PREPARATION CHECKPOINT WITH THE EXCEPTION OF SURFACE PROFILE SHALL BE REPEATED.**

**NOTE: THE TERMS "COATING SYSTEM" AND "PAINT" IN THE CORE PPI SHALL REFER TO ANY COMPONENT OF THE DECK COVERING SYSTEM.**

7.1 Not Applicable to this PPI

7.9 PAINT APPLICATION: The use of brush, rollers, and single or plural component spray equipment is acceptable for application of the paint coat specified below.

7.10 Not Applicable to this PPI

**8. PRIMER/BOND COAT APPLICATION: Refer to Core PPI.**

**NOTE: THE BOND COAT FOR THE MIL-PRF-3135 TYPE I, CLASS 2 LIGHTWEIGHT UNDERLAYMENT SYSTEMS MAY BE CONSIDERED THE "PRIMER COAT" WHEREVER THAT TERM APPEARS IN THE CORE PPI."**

**NOTE: BOND COAT APPLICATION IS NOT REQUIRED FOR COSMETIC POLYMERIC SYSTEM INSTALLATION USING TYPE I, CLASS 2, SS 1280, ONE-STEP LIGHT WEIGHT POLYMER UNDERLAYMENT.**

**9. DECK UNDERLAYMENT SYSTEM:**

9.1 COMBINED UNDERLAYMENT/MEMBRANE INSTALLATION: (SS 1280)

**NOTE:**

9.1.1 Mix Underlayment IAW manufacturer's product specification/technical data sheet, Ref. 2.c.

- 9.1.2 Apply to the entire deck IAW manufacturer's product specification/technical data sheet. The minimum thickness will be 1/8 inch. Deck irregularities will be faired and positive slopes produced toward drains, Ref. 2.c. If positive sloping cannot be achieved using the SS 1280, then ultra-lightweight underlayment shall be installed on top of the SS1280 to provide positive sloping toward drains. The thickness of the deck system adjacent to the deck drain shall be no greater than the height of the deck drain collar.
- 9.1.3 Curing overnight (12 hours minimum) is recommended prior to application of next coat.
- 9.1.4 Use low-level lighting to help avoid trowel marks.
- 9.1.5 CHECKPOINT (Underlayment): Verify underlayment is applied IAW manufacturer's product specification/technical data sheet (e.g., verify underlayment has proper consistency, verify entire deck area covered completely to a uniform thickness, verify underlayment properly applied to produce a positive slope toward drains, verify minimum coat application used to avoid excessive buildup of material), Ref. 2.c.
- 9.1.6 In order to pass the checkpoint, Appendix 5 shall be up to date and submitted to QA. QA shall sign Appendix 5 in the appropriate places.
- 9.2 ULTRA-LIGHT WEIGHT UNDERLAYMENT INSTALLATION: (SS 1290)
- NOTE: APPLY ONLY ENOUGH ULTRA-LIGHT WEIGHT UNDERLAYMENT TO LEVEL OUT DEPRESSIONS IN THE DECK, AND SLOPE DECK TO DRAINS. THE THICKNESS OF THE DECK SYSTEM ADJACENT TO THE DECK DRAIN SHALL BE NO GREATER THAN THE HEIGHT OF THE DECK DRAIN COLLAR.**
- 9.2.1 BOND COAT:
- 9.2.1.1 Mix Bond Coat IAW the manufacturer's product specification/technical data sheet, Ref. 2.c.
- 9.2.1.2 Apply Bond Coat with brush, trowel, or squeegee. Application techniques will vary depending upon when underlayment will be applied. Refer to manufacturer's product specification/technical data sheet, Ref. 2.c.
- 9.2.1.3 CHECKPOINT (Bond Coat): Verify bond coat is applied IAW manufacturer's product specification/technical data sheet (e.g., verify bond coat material has proper consistency, verify area covered completely to a uniform thickness, verify minimum coat application used to avoid excessive buildup of material), Ref. 2.c.
- 9.2.1.4 In order to pass the checkpoint, Appendix 5 shall be up to date and submitted to QA. QA shall sign Appendix 5 in the appropriate places.
- 9.2.2 UNDERLAYMENT:
- NOTE: ULTRA-LIGHT WEIGHT UNDERLAYMENT MUST BE APPLIED WHILE BOND COAT IS STILL TACKY.**
- 9.2.2.1 Mix Underlayment IAW manufacturer's product specification/technical data sheet, Ref. 2.c.
- 9.2.2.2 Apply by trowel over bond coat to fair deck irregularities and produce positive slopes toward drains IAW manufacturer's product specification/technical data sheet, Ref. 2.c.
- 9.2.2.3 Curing overnight (12 hours minimum) is recommended prior to application of next coat.
- 9.2.2.4 Use low-level lighting to help avoid trowel marks.
- 9.2.2.5 CHECKPOINT (Underlayment): Verify underlayment is applied IAW manufacturer's product specification/technical data sheet (e.g., verify underlayment has proper consistency, verify area covered completely to a uniform thickness, verify underlayment properly applied to produce a positive slope toward drains, verify minimum coat application used to avoid excessive buildup of material), Ref. 2.c.
- 9.2.2.6 In order to pass the checkpoint, Appendix 5 shall be up to date and submitted to QA. QA shall sign Appendix 5 in the appropriate places.
- 9.2.3 WATERPROOF MEMBRANE: (APPLICABLE TO WET INTERIOR SPACE DECK INSTALLATIONS ONLY)

**NOTE: FOR WET INTERIOR SPACE DECK INSTALLATIONS A WATERPROOF MEMBRANE SHALL BE APPLIED OVER THE ENTIRE PREPARED DECK SURFACE TO HAVE COSMETIC POLYMERIC INSTALLED. IN ORDER THAT THE COVE BASE (2 INCH TO 4 INCH) ON THE BULKHEADS CAN OVERLAP THE MEMBRANE, THE MEMBRANE WILL EXTEND UPWARD ON VERTICAL SURFACES THE FULL HEIGHT OF THE COVE BASE.**

9.2.3.1 Mix Waterproof Membrane IAW manufacturer's product specification/technical data sheet, Ref. 2.c.

9.2.3.2 Apply membrane by brush, roller, squeegee or trowel. Do not allow material to puddle.

9.2.3.3 If specified by the manufacturer, apply additional coat to applicable areas IAW manufacturer's product specification/technical data sheet, Ref. 2.c.

## **10. COSMETIC POLYMERIC INSTALLATION:**

**NOTES: AN AGGREGATE (E.G. ALUMINUM OXIDE) SHALL BE INCLUDED IN THE FINAL SEAL COAT TO PROVIDE A SLIP RESISTANCE MINIMUM COF OF 0.7 DRY AND 0.6 WET WHEN TESTED IN ACCORDANCE WITH ASTM D2047 FOR ALL COSMETIC POLYMERIC DECK TYPES.**

**THE MATERIALS MUST BE STORED AND MIXED AT A TEMPERATURE BETWEEN 60°F TO 80°F (16°C TO 27°C) FOR BEST MIXING AND APPLICATION PROPERTIES. A WARM SUBSTRATE WILL DECREASE THE POT LIFE AND MAKE THE MATERIALS STICKY. A COOLER SUBSTRATE WILL RETARD THE CURE AND CAUSE A BLUSH OF THE POLYMERIC RESINS.**

**MAINTAIN DECK SURFACE AND ROOM TEMPERATURE BETWEEN 65°F TO 75°F (18°C TO 24°C) FOR PROPER CURING DURING APPLICATION AND FOR AT LEAST 24 HOURS AFTER INSTALLATION.**

**WHEN MIXING THE POLYMERIC RESIN COMPONENTS, USE ALL OF THE PROVIDED RESINS. THE RESINS ARE PRE-MEASURED TO THE CORRECT RATIOS. SCRAPE ALL OF THE HARDENER FROM THE CONTAINER INTO THE RESIN.**

**DO NOT TURN MIXING VESSELS UPSIDE DOWN TO DRAIN ON THE FLOORING SURFACE. UNMIXED RESIN FROM THE SIDE MAY PRODUCE SOFT OR UNCURED SPOTS ON THE FLOORING SURFACE.**

**A 2-4 INCH COVE BASE SHALL BE REQUIRED FOR ALL COSMETIC POLYMERIC INSTALLATIONS.**

10.1 TYPE II, CLASS 1 INSTALLATION  
(MATERIAL CONSISTING OF URETHANE MATRIX MATERIAL AND COLORED QUARZ AGGREGATE)

10.1.1 No qualified products listed on QPL-24613.

10.2 TYPE II, CLASS 2 INSTALLATION  
(MATERIAL CONSISTING OF URETHANE MATRIX MATERIAL AND COLOR FLAKE TOPPING)

10.2.1 The following are generic procedures for Type II, Class 2 cosmetic polymeric installations:

10.2.1.1 Mix the basecoat material exactly as specified by the manufacturer, using Ref. 2.c.

10.2.1.2 Apply the basecoat material by V-notch trowel to the entire prepared deck surface evenly using Ref. 2.c.

10.2.1.3 Allow the basecoat to cure IAW Ref. 2.c prior to application of the basecoat.

**NOTE: APPLY COVE BASE AS NEEDED TO VERTICAL SURFACES.**

10.2.1.4 Mix cove base material exactly as specified by manufacturer using Ref. 2.c. Thickener may be required to achieve a pasty type mix suitable for vertical application.

10.2.1.5 Apply by brush to vertical surfaces using Ref. 2.c.

10.2.1.6 Mix the receiving coat material exactly as specified by the manufacturer using Ref. 2.c.

- 10.2.1.7 Immediately after the receiving coat material flows out apply it using Ref. 2.c. and broadcast the preblended flakes into the receiving coat.
- 10.2.1.8 Ensure that the receiving coat is thoroughly covered with aggregate while it is still wet. Make sure all wet spots receive additional aggregate. Back-roll as necessary to eliminate trowel marks or ridges.
- 10.2.1.9 Allow the receiving coat to dry as specified by the manufacturer IAW Ref. 2.c.
- 10.2.1.10 Mix the sealer coat material exactly as specified by the manufacturer using Ref. 2.c.
- 10.2.1.11 Apply by trowel or brush to entire prepared deck surface as specified by the manufacturer IAW Ref. 2.c.
- 10.2.1.12 Apply the sealer coat to the cove base by paint brush to avoid puddling and flow. Ensure all applications to the cove base are minimum coats and applied with care to eliminate excess deposits of sealer at the cove area. Clean away excess material before it is allowed to dry.
- 10.2.1.13 Allow the seal coat to properly cure as specified by the manufacturer IAW Ref. 2.c. Protect the deck from heavy traffic for 24 hours after installation before full service is restored. The deck must not be washed for 48 hours.
- 10.2.2 The following manufacturer installation steps are required in addition to the generic procedures for Type II, Class 2 cosmetic polymeric installations:
  - 10.2.2.1 DEX-O-TEX TYPE II, CLASS 2 INSTALLATION
    - 10.2.2.1.1 GROUT COAT APPLICATION PRIOR TO BASECOAT APPLICATION (COMPONENTS E AND F)
      - 10.2.2.1.2 Apply a coat of Grout Resin to the (overnight cured) underlayment prior to application of the Bondcoat. Vacuum up all dirt and dust from the surface of the underlayment or waterproof membrane prior to application of the Grout Coat.
      - 10.2.2.1.3 Pour the Grout Resin component F into component E and blend together slowly but thoroughly with a mechanical mixer. Apply the resulting mix with a squeegee to an even minimum thickness. Leave no puddles or streaks from flow-off from the squeegee. Pot life is 30 minutes maximum. Allow the Grout Coat to cure at least 8-12 hours at 65°F to 75°F (18°C TO 24°C) before application of the Bondcoat.
    - 10.2.2.2 COLOR COAT APPLICATION PRIOR TO COLOR FLAKE APPLICATION (COMPONENTS A AND B)
      - 10.2.2.2.1 Remove any trowel marks or other imperfections in the Basecoat. Lightly sand the surface with 80-grit open coat sandpaper if necessary. Wipe the entire surface with a damp cloth to remove all particles of dust just prior to application of the Color Coat. Surface must be thoroughly dry.
      - 10.2.2.2.2 Pour the contents of the can containing Color Coat component B into the can containing component A. Blend thoroughly to a homogeneous mixture with a power drill motor and mixing blade for approximately 3 minutes.
      - 10.2.2.2.3 Apply the Color Coat by pouring the mixed resin onto the surface and spread it liberally. Spread the material with a high quality short nap roller. Allow to cure for approximately 12-16 hours before proceeding.
  - 10.2.2.2 POLYSPEC TYPE II, CLASS 2 INSTALLATION
    - 10.2.2.2.1 TOPCOAT APPLICATION AFTER SEAL COAT APPLICATION (PART A (RESIN), PART B (HARDENER), AND PART C)
      - 10.2.2.2.1 Apply the Topcoat after the Seal Coat has been allowed to cure for 10-12 hours at 75°F +/- 3°F (24°C +/- 1.5°C). The Topcoat is a three-component material. Using a mixer blade and a 1/4-inch variable speed drill, mix Part A with Part B. Mix for 2 minutes at high speed. Add Part C and mix for 1 minute. Spread the Topcoat evenly onto the deck using a short nap roller. Remove any loose hair from the roller before the installation. Roll the material evenly and **DO NOT** go back over an area that has been down for more than a couple of minutes. This will reduce the gloss level in that area. Do not install the Topcoat at more than 5 mils otherwise the material will become cloudy and physical properties as well as cure time will be effected. The material goes down milky white but will become clear as it cures. Normal pot life is approximately 45 minutes at 77°F (25°C).



- 10.2.2.2.2 Allow 8 hours cure time at 75°F +/- 3°F (24°C +/- 1.5°C) before opening to light foot traffic. Open to full service in 24 hours. Ultimate cure is 72 hours. Cure times are based on 75°F +/- 3°F (24°C +/- 1.5°C and 50% relative humidity. Additional deck protection can be provided through the final cure by covering the deck surface with fire-rated paper. This will prevent premature scratching of the deck surface.
- 10.2.2.3 ITW-AMERICAN SAFETY TECHNOLOGIES TYPE II, CLASS 2 INSTALLATION
- 10.2.2.3.1 FLEXIBLE INTERMEDIATE MEMBRANE APPLICATION PRIOR TO BASECOAT APPLICATION (COMPONENTS A AND B)
- 10.2.2.3.2 Apply the Flexible Membrane by roller or by notched trowel. Use 3/16" nap roller. Pour a ribbon of MS-1600 on the surface 2' to 4' long and 1' to 2' wide. Roll material in slow straight strokes pulling material towards you, spreading evenly. To spread with a trowel, use a 1/4" notched trowel or NAVSEA approved notched trowel. Pour material as indicated for rolling. Spread evenly by pushing trowel forward, then back toward the applicator at a 60° angle from the deck. Remove excess buildup from the trowel prior to making a second pass. Allow to cure 12-16 hours before applying the Base Coat.
11. Seal all edges of the cosmetic polymeric covering including penetrations for pipes, foundations, vents, and other structures with a caulking compound like "Clear Caulk" or equivalent, which is a sandable and paintable acrylic.
- 12. CHECKPOINT (Free Flow Test): Applicable only if deck drains are in the area of the deck system**
- 12.1 Mechanically clean each deck drain from point of entry to each terminating point, free of foreign matter that could affect performance or damage system components.
- 12.2 Isolate each component that may be damaged by cleaning.
- 12.3 Flush each drain after cleaning with clean, fresh water, until free of debris. Test to ensure drains flow free.
- 12.4 Reinstall each deck drain strainer plate removed in 5.1.
- 12.5 Retap each hole for each new fastener.
- 12.6 Install new fasteners, same type and size as those removed in paragraph 5.1.
- 12.7 All tests and inspections noting unsatisfactory conditions shall result in the termination and rescheduling of the checkpoint. At rescheduled checkpoint, QA shall document satisfactory corrective actions taken to correct discrepancy.
- 12.8 In order to pass the checkpoint, Appendix 5 shall be up to date and submitted to QA. QA shall sign Appendix 5 in the appropriate places.
- 13. CHECKPOINT (Positive Drain Test): Applicable only if deck drains are in the area of the deck system**
- 13.1 Apply a sufficient amount of clean, fresh water throughout compartment deck surfaces to verify that new deck covering slopes to drains and water does not stand or puddle on deck. Water shall flow to drains when applied to deck surfaces.
- 13.2 All tests and inspections noting unsatisfactory conditions shall result in the termination and rescheduling of the checkpoint. At rescheduled checkpoint, QA shall document satisfactory corrective actions taken to correct discrepancy.
- 13.3 In order to pass the checkpoint, Appendix 5 shall be up to date and submitted to QA. QA shall sign Appendix 5 in the appropriate places.
- 14. FINAL INSPECTION:**
- 14.1 CHECKPOINT (Finished Cosmetic Polymeric Surfaces):
- 14.1.1 Cosmetic polymeric covering system imperfections found, which may cause premature covering failure, shall be corrected before the system is accepted. Slight imperfections in the cosmetic polymeric covering system are allowable, as long as they do not penetrate to the underlying layer, and shall not result in premature failure of the covering in the immediate vicinity of the imperfection. Such slight imperfections

should be left intact, as trying to correct them could result in damage to the surrounding cosmetic polymeric covering system.

- 14.1.2 In order to pass the checkpoint, any Appendices required by the certified coating inspector shall be up to date or completed and submitted to QA. QA shall sign Appendix 5 in the appropriate areas. All test inspections noting unsatisfactory conditions shall be corrected.

**15. RESEALING AND REPAIR PROCEDURES:**

- 15.1 For resealing, refinishing, and repair procedures for Type I, Classes 1, 2, & 3 cosmetic polymeric deck coverings see Appendix 10.

## APPENDIX 5

### CHECKPOINTS & MILESTONES COMPLETION & SIGN OFF LOG

SHIP: \_\_\_\_\_ JOB ORDER: \_\_\_\_\_ DATE: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_ WORK ITEM: \_\_\_\_\_ PARA. NO.: \_\_\_\_\_  
 PRODUCT BEING APPLIED: \_\_\_\_\_

**MAINTAIN SEPARATE LOG FOR EACH AREA/LOCATION, PREPARED OR PAINTED SURFACE. WHEN AN AREA IS DIVIDED INTO SEPARATE SECTIONS MAINTAIN A SEPARATE LOG FOR EACH SECTION.**

ACTIVITY	TIME	DATE
Date Pre-Surface Preparation and Cleaning Begins Implementing Contractor (Print/ Signature): _____ Certified Inspector (Print): _____ Certified Inspector (Signature): _____ NACE Session I Certification <input type="checkbox"/> NBPI Certification <input type="checkbox"/> Inspector #: _____ Certification Expiration Date: _____		
Date of Pre-Surface Preparation and Cleaning Checkpoint --Date of Visual and UV Light or Water-Break Inspection Check --Date of Structural and Pre-Surface Conditioning (ensuring de-burring and grinding) Check --Date of Contamination Containment and Masking Check Implementing Contractor (Print/ Signature): _____ Certified Inspector (Print): _____ Certified Inspector (Signature): _____ NACE Session I Certification <input type="checkbox"/> NBPI Certification <input type="checkbox"/> Inspector #: _____ Certification Expiration Date: _____		
Date Surface Preparation Begins Implementing Contractor (Print/ Signature): _____ Certified Inspector (Print): _____ Certified Inspector (Signature): _____ NACE Session I Certification <input type="checkbox"/> NBPI Certification <input type="checkbox"/> Inspector #: _____ Certification Expiration Date: _____		
Date of Surface Preparation Checkpoint --Date of Surface Profile Measurement Check --Date of Soluble Salt Measurement Check --Date of Environmental Check --Date of Contamination Containment and Masking Check --Date of Inspection of Prepared area (ensuring all areas are properly prepared) Check --Date of Inspection of area cleanliness prior to paint application Check Implementing Contractor (Print/ Signature): _____ Certified Inspector (Print): _____ Certified Inspector (Signature): _____ NACE Session I Certification <input type="checkbox"/> NBPI Certification <input type="checkbox"/> Inspector #: _____ Certification Expiration Date: _____		
Date Material Storage Area Inspected Implementing Contractor (Print/ Signature): _____ Certified Inspector (Print): _____ Certified Inspector (Signature): _____ NACE Session I Certification <input type="checkbox"/> NBPI Certification <input type="checkbox"/> Inspector #: _____ Certification Expiration Date: _____		
Date Paint Mixing Inspected --Date of Shelf Life Check --Date of Temperature Check --Date of Mixing Check Implementing Contractor (Print/ Signature): _____ Certified Inspector (Print): _____ Certified Inspector (Signature): _____ NACE Session I Certification <input type="checkbox"/> NBPI Certification <input type="checkbox"/> Inspector #: _____ Certification Expiration Date: _____		
Date One-Step Light Weight Polymer Underlayment is Applied (If Applicable) Implementing Contractor (Print/ Signature): _____ Certified Inspector (Print): _____ Certified Inspector (Signature): _____ NACE Session I Certification <input type="checkbox"/> NBPI Certification <input type="checkbox"/> Inspector #: _____ Certification Expiration Date: _____		

## APPENDIX 5 (CONTINUED)

### CHECKPOINTS & MILESTONES COMPLETION LOG

SHIP: \_\_\_\_\_ JOB ORDER: \_\_\_\_\_ DATE: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_ WORK ITEM: \_\_\_\_\_ PARA. NO.: \_\_\_\_\_  
 PRODUCT BEING APPLIED: \_\_\_\_\_

**MAINTAIN SEPARATE LOG FOR EACH AREA/LOCATION, PREPARED OR PAINTED SURFACE. WHEN AN AREA IS DIVIDED INTO SEPARATE SECTIONS MAINTAIN A SEPARATE LOG FOR EACH SECTION.**

ACTIVITY	TIME	DATE
Date of One-Step Light Weight Polymer Underlayment Checkpoint (If Applicable) Implementing Contractor (Print/ Signature): _____ Certified Inspector (Print): _____ Certified Inspector (Signature): _____ NACE Session I Certification <input type="checkbox"/> NBPI Certification <input type="checkbox"/> Inspector #: _____ Certification Expiration Date: _____		
Date Bond Coat is Applied (If Applicable) Implementing Contractor (Print/ Signature): _____ Certified Inspector (Print): _____ Certified Inspector (Signature): _____ NACE Session I Certification <input type="checkbox"/> NBPI Certification <input type="checkbox"/> Inspector #: _____ Certification Expiration Date: _____		
Date of Bond Coat Checkpoint (If Applicable) Implementing Contractor (Print/ Signature): _____ Certified Inspector (Print): _____ Certified Inspector (Signature): _____ NACE Session I Certification <input type="checkbox"/> NBPI Certification <input type="checkbox"/> Inspector #: _____ Certification Expiration Date: _____		
Date Ultra-Light Weight Underlayment is Applied (If Applicable) Implementing Contractor (Print/ Signature): _____ Certified Inspector (Print): _____ Certified Inspector (Signature): _____ NACE Session I Certification <input type="checkbox"/> NBPI Certification <input type="checkbox"/> Inspector #: _____ Certification Expiration Date: _____		
Date of Ultra-Light Weight Underlayment Checkpoint (If Applicable) Implementing Contractor (Print/ Signature): _____ Certified Inspector (Print): _____ Certified Inspector (Signature): _____ NACE Session I Certification <input type="checkbox"/> NBPI Certification <input type="checkbox"/> Inspector #: _____ Certification Expiration Date: _____		
Date of Free Flow Test Implementing Contractor (Print/ Signature): _____ Certified Inspector (Print): _____ Certified Inspector (Signature): _____ NACE Session I Certification <input type="checkbox"/> NBPI Certification <input type="checkbox"/> Inspector #: _____ Certification Expiration Date: _____		
Date of Positive Drain Test Implementing Contractor (Print/ Signature): _____ Certified Inspector (Print): _____ Certified Inspector (Signature): _____ NACE Session I Certification <input type="checkbox"/> NBPI Certification <input type="checkbox"/> Inspector #: _____ Certification Expiration Date: _____		
Date of Finished Cosmetic Polymeric Surfaces Checkpoint Implementing Contractor (Print/ Signature): _____ Certified Inspector (Print): _____ Certified Inspector (Signature): _____ NACE Session I Certification <input type="checkbox"/> NBPI Certification <input type="checkbox"/> Inspector #: _____ Certification Expiration Date: _____		

## APPENDIX 6

### PAINT APPLICATION EQUIPMENT AND PAINT CONSUMPTION LOG

SHIP: \_\_\_\_\_ JOB ORDER: \_\_\_\_\_ DATE: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_ WORK ITEM: \_\_\_\_\_ PARA. NO.: \_\_\_\_\_  
 PRODUCT BEING APPLIED: \_\_\_\_\_

**MAINTAIN SEPARATE LOG FOR EACH AREA/LOCATION, PREPARED OR PAINTED SURFACE. WHEN AN AREA IS DIVIDED INTO SEPARATE SECTIONS MAINTAIN A SEPARATE LOG FOR EACH SECTION.**

		Primer Coat (N/A)	Comb Under-layment	Bond Coat	Ultra-LW Underlay-ment	Cosmetic Polymeric Deck Covering
Airless Paint Hose Size		N/A	N/A	N/A	N/A	N/A
Airless Paint Hose Length		N/A	N/A	N/A	N/A	N/A
Airless Tip Orifice Diameter / Fan Width		N/A	N/A	N/A	N/A	N/A
Airless Pump Used & Model	Plural Airless	N/A	N/A	N/A	N/A	N/A
	Conventional Airless					
Airless Pump Ratio If plural component: Fixed <input type="checkbox"/> or Variable <input type="checkbox"/>		N/A	N/A	N/A	N/A	N/A
If Using Inline Heater Temperature in F° (Fahrenheit)	Temperature Setting At Heater	N/A	N/A	N/A	N/A	N/A
	Temperature At Tip	N/A	N/A	N/A	N/A	N/A
Product Applied						
Product Manufacturer						
Expiration Date						
Color Applied						
Product VOC						
Base Portion Batch № (Part A)						
Base Portion Batch № (Part A) Expiration Date						
Hardener Portion Batch № (Part B)						
Hardener Portion Batch № (Part B) Expiration Date						
Gallons Used per Coat						
Square Feet Painted						

## **APPENDIX 10**

Resealing, refinishing, and repair procedures for cosmetic polymeric deck covering

### **TYPE II, CLASS 1**

- 1) No qualified products listed on QPL-24613.

### **TYPE II, CLASS 2**

- 1) Resealing

Strip the existing sealer from the deck surface by washing the surface with a household ammonia solution (1/2 per cent solution), agitating the solution on the deck with a deck brush or stripping pad mounted on a floor maintenance machine; pick up the dirty solution and then rinse with water. When the surface is thoroughly clean and dry, reapply the sealer conforming to MIL-S-24522 (Sealer, Deck Covering) in thin coats using a clean sponge or string mop, rung out almost dry. Two thin coats are sufficient but a third coat shall be required in heavily trafficked areas. Allow sufficient drying time between coats using Ref. 2.c. More time may be required for drying during periods of high humidity

- 2) Refinishing the Sealer coat

To refinish the sealer coat strip the existing sealer from the deck surface by washing the surface with a household ammonia solution (1/2 per cent solution), agitating the solution on the deck with a deck brush or stripping pad mounted on a floor maintenance machine; pick up the dirty solution and then rinse with water. When the surface is thoroughly clean and dry, lightly sand the surface with a #60 grit sanding disc. Clean up the sanding residue and apply an additional coat (or coats) of clear sealer.

- 3) Repair of the Pigmented Matrix Epoxy

If it becomes necessary to patch damaged pigmented matrix epoxy sand the damaged area thoroughly and replace with new material. The new pigmented matrix epoxy material shall be installed in accordance with procedures given in the applicable section of this document. The new pigmented matrix epoxy material shall be applied to cover sanded area to neatly taped edges that lap over edges at surrounding pigmented matrix epoxy decking. Apply the sealer coat (s) in accordance with procedures given in the applicable section of this PPI.