

SPECIAL COATING PROCEDURE NO. M-7 Revision 1

ATTACHMENT 2
35-1195 - CCP 30

DCN #1

Mark Wells 4/17/84
Originator Date

R. M. Kissinger 4/17/84
Project Discipline Manager Date

Eric L. Blum 4/18/84
TUGCO Quality Assurance Date

D. C. Frankum 4-29-84
Construction Project Manager Date

4/24/84
Effective Date

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ENGINEERING USE ONLY**

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PDR FOIA
GARDEB5-59 PDR



JOB 35-1195

COMANCHE PEAK STEAM ELECTRIC STATION

Construction Procedure
DOCUMENT CHANGE NOTICE NUMBER 1

Notice applicable to Construction Procedure No. 35-1195- CCP-30 M-7 Rev. 1.

This change will be incorporated in the next revision of the procedure.

Change the procedure as follows:

Replace the following pages with the attached:

Sheet 1 of 9

2 of 9

Reviewed by:

[Signature] 5-10-84
Originator Date

n/c JPC iii 5-10-84
Brown & Root Quality Assurance Date

Approved by:

[Signature] 5-11-84
TUGCO Quality Assurance Date

D.C. Zankum 5-14-84
Construction Project Manager Date

05/14/84
Effective Date



"Q" Coating X

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Procedure # M-7

"Non-Q" Coating

Rev. 1 Date 04/24/84

SPECIAL COATING PROCEDURE NO. M-7

SCOPE: Application of Keeler & Long Epoxy Primer #6548 and Epoxy
 Enamel Topcoat #7475 to Reactor Building # 1 & 2 Rotating Platform
 (Touchup and Repair)

GENERAL: Reference 2 & 3 shall be utilized for guidelines not specifically referenced below under the listed requirements. If conflict exists between Reference 2 and Reference 3, the requirements of Reference 3 shall prevail.

REQUIREMENTS:

1. Primer material
- 1.1 Primer material shall be Keeler & Long Epoxy Primer #6548, green in color.
2. Surface preparation
- 2.1 Surface preparation shall be per Reference 2 and 3.
3. Mixing & Thinning
- 3.1 Material mixing and thinning shall be as delineated in Reference 2.

Note: Material pot life may exceed that as shown in Attachment 2. Actual pot life is dependent upon workability of the coating.

4. Equipment
 - 4.1 Equipment guidelines are as stated in Reference 2.
 5. Application
 - 5.1 Application guidelines and procedures are as delineated in Reference 2 and 3.
 - 5.2 Primer thickness shall be per Reference 1, Attachment 2E.
- Curing and drying times.



ATTACHMENT 2 (Continued)
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- 6.1 Curing and drying times are delineated in Reference 2.
- 7. Repair and touchup
- 7.1 Repair and touchup shall be per Reference 2 & 3.
- 8. Topcoat material
- 8.1 Topcoat material shall be Keeler & Long Epoxy Enamel #7475, white in color.
- 9. Surface preparation
- 9.1 Topcoat thickness shall be per Reference 1, Attachment 2E.
- 10. Mixing & thinning
- 10.1 Material mixing and thinning shall be as delineated in Reference 2.

Note: 1) For cosmetic recoating of an item, material may be thinned up to 50% by volume to facilitate application.

2) Material pot life may exceed that as shown in Attachment 2. Actual pot life is dependent upon workability of the coating.

- 11. Equipment
- 11.1 Application equipment guidelines are as stated in Attachment 2.
- 12. Application
- 12.1 Application guidelines and procedures are as delineated in Reference 2 & 3.
- 12.2 Topcoat millage shall be per Reference 1.
- 13. Curing and drying times
- 13.1 Curing and drying times are delineated in Reference 2.
- 14. Repair and touchup
- 14.1 Repair and touchup shall be per Reference 2 & 3.



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ATTACHMENT 2 (Continued)
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Rev. 1 Date 4/24/84

REFERENCE DOCUMENTS:

1. Keeler & Long Nuclear Technical
Bulletin, No. 5, February 1979
Pages 6 and 7
(Attachments 2E and 2F)
2. Keeler & Long
Application Procedure Guide
February, 1984
APG-2 QA 650-655
(Attachments 2A, 2B, 2C, and 2D)
3. Gibbs & Hill Specification 2323-AS-31
Latest Revision



APPLICATION PROCEDURE GUIDE

FOR TWO COMPONENT SOLVENT BASED EPOXY COATING MATERIALS

ATTACHMENT 2A

M-7 Rev.1 Sheet 4 of 9

NUCLEAR

KOLORS
February, 1984
APG-2
QA 650-655

4/24/84

1.0 PURPOSE AND SCOPE

1.1 This information is a procedural guide which controls the application of:

- 1.1.1 No. 4129 EPOXY CLEAR CURING COMPOUND
- 1.1.2 No. 6548/7107 EPOXY WHITE PRIMER (or light tints)
- 1.1.3 No. 4000 EPOXY SURFACER (or light tints)
- 1.1.4 No. 6548-S EPOXY SURFACER (or light tints)
- 1.1.5 No. E-1 (E-2) SERIES EPOXY ENAMEL (7475 white or colors)
- 1.1.6 No. D-1 SERIES EPOXY HI-BUILD ENAMEL (9140 white or light colors)

1.2 This guide controls the application specifically as recommended for NUCLEAR COATING SERVICE LEVEL ONE although these methods may be applied to levels and/or applications other than LEVEL ONE as required by the project specification.

1.3 The above coating materials have been qualified in accordance with ANSI Standards N101.2 and N512, ASTM Standard D3842 and/or the specific requirements of the Architect/Engineer.

1.4 The above coating materials are manufactured in accordance with a written QUALITY ASSURANCE PROGRAM which meets the requirements of Appendix B 10CFR50 of the Federal Register, ANSI N101.4 and ASTM D3843.

2.0 SURFACE PREPARATION

2.1 Surface Preparation: Carbon Steel

2.1.1 The required degree of surface preparation is determined by the original test qualifications and/or the project specification and is generally one of the following in accordance with Steel Structures Painting Council (SSPC):

- 2.1.1.1 Minimum Surface Preparation: SSPC SP-6 "Commercial Blast"
- 2.1.1.2 Level One (Non-Immersion) : SSPC SP-10 "Near-White Blast"
- 2.1.1.3 Level One (Immersion) : SSPC SP-5 "White Metal Blast"
- 2.1.1.4 Surface Profile: 1-3 mils (Keane-Tator Profile Comparator or Texcex Press-O-Film)
- 2.1.1.5 Other Surface Preparation Requirements: All sharp edges should be rounded and other surface imperfections such as weld or steel defects should be repaired prior to coating.
- 2.1.1.6 Prime properly prepared carbon steel surfaces with No. 6548/7107.

2.2 Surface Preparation: Concrete or Masonry

2.2.1 Concrete work shall conform to all requirements of the latest edition of ACI 301 "Specification for Structural Concrete for Buildings" except as modified by the supplemental requirements specified herein.

2.2.2 Form Release Agents

2.2.2.1 No. 4129 or other approved form release agent shall be used.

2.2.3 Concrete Curing Compounds

2.2.3.1 No. 4129, water or other approved curing compounds shall be used.

2.2.3.2 If a curing compound is used, it shall be applied within 24 hours after removal of forms.

2.2.3.3 Cure at least 28 days prior to coating.

2.2.4 The following methods of surface preparation may be used to prepare concrete walls and floors, in order to remove surface contaminants, and/or provide the proper surface profile.

2.2.4.1 Brooming or sweeping to remove dirt, dust, laitance, or other loose foreign materials.

2.2.4.2 Light abrasive air or water blasting in order to remove laitance or other surface contaminants.

2.2.4.3 Chemical Treatment

(a) ACID ETCH using either Sulfamic or Phosphoric Acids in order to remove laitance or other contaminants and provide a surface profile. Acid strength depends upon the amount of contamination and the etching necessary to meet the specific project requirements. Acid etching must be followed by neutralization producing an alkaline surface in a pH range of 7.5-9.5 prior to coating.

(b) ALKALINE WASH using Trisodium Phosphate (TSP) in order to remove laitance or other contaminants and provide an alkaline surface in a pH range of 7.5-9.5. Recommended solution strength 1 lb. TSP per gallon of water.

(c) After Acid Etching and Alkaline Washing, rinse thoroughly with clean water.

2.2.4.4 Concrete Floors should be trowelled (wood float) to provide a surface profile similar to the consistency of "Medium Grade" sandpaper.

2.2.4.5 Form tie holes should be filled in accordance with an approved procedure with either a cement grout or an epoxy surface approved for use in conjunction with the specified coating system.

2.2.5 Prime and/or surface walls and floors with Nos. 6548/7107, 4000 or 6548-S.

2.3 Coating Repair: Carbon Steel, Concrete or Masonry

2.3.1 Small surfaces damaged during construction or welding are generally repaired using power tool repair procedures which have been prequalified in accordance with the accepted standards.

2.3.2 Coating repair should return a steel surface to bright metal equivalent to SSPC SP-10 "Near-White Blast".

2.3.3 A variety of power tools may be used in order to prepare concrete surfaces equivalent to SSPC SP-3 "Power Tool Cleaning".

APPLICATION GUIDELINES

ATTACHMENT 2B

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3.0 MATERIAL STORAGE

- 3.1 Nos. 4129, 6548/7107, E-1 (E-2) Series and D-1 Series should be stored indoors in a range of 55-95°F.
- 3.2 Nos. 4000 and 6548-S should be stored indoors in a range of 55-85°F.
- 3.3 If during shipment or for some other reason these materials are stored outside the specific storage range temporarily, the material must be brought into the specified range at least 24 hours prior to application.
- 3.4 Storage Duration
- 3.4.1 Shelf life - One year from date of manufacture.
- 3.4.2 Use prior to expiration date stated on container.

4.0 APPLICATION CONDITIONS

4.1 Temperature

- 4.1.1 The temperature of the ambient air, the substrate, and the coating material should be controlled between 55-120°F for Nos. 4129, 6548/7107, E-1 (E-2) Series and D-1 Series.
- 4.1.2 The temperature of the ambient air and the substrate should be controlled between 55-100°F and the temperature of the coating material should be controlled between 55-85°F for Nos. 4000 and 6548-S.

4.2 Humidity

- 4.2.1 Air: Control either the relative humidity to 80% or less, or the temperature to at least 5°F above the dew point in the specified temperature range.
- 4.2.2 Substrate: Control the temperature of the substrate to at least 5°F above the dew point in the specified temperature range.

5.0 APPLICATION PREPARATION

5.1 Packaging

- 5.1.1 The epoxy coating materials covered by this guide are furnished in two component kits (Part A-Paint/Part B-Converter) as follows:

TABLE 1-CONTAINER SIZE AND RATIO OF COMPONENT A TO COMPONENT B (BY VOLUME)

PRODUCT	COMPONENT	1 QT KIT	1 GAL KIT	2 GAL KIT	3 GAL KIT	5 GAL KIT
4129	A	.2 GAL IN 1 QT. CAN	.8 GAL IN 1 GAL CAN	---	---	4 GAL IN 5 GAL CAN
	B	.05 GAL IN 1/2 PT. CAN	.2 GAL IN 1 QT. CAN	---	---	1 GAL IN 1 GAL CAN
6548/7107	A	.2 GAL IN 1 QT. CAN	.8 GAL IN 1 GAL CAN	1.6 GAL IN 2 GAL CAN	---	4 GAL IN 5 GAL CAN
	B	.05 GAL IN 1/2 PT. CAN	.2 GAL IN 1 QT. CAN	.4 GAL IN 1/2 GAL CAN	---	1 GAL IN 1 GAL CAN
4000	A	---	.8 GAL IN 2 GAL CAN	---	2.4 GAL IN 5 GAL CAN	---
	B	---	.2 GAL IN 1 QT. CAN	---	.6 GAL IN 1 GAL CAN	---
6548-S	A	---	.8 GAL IN 1 GAL CAN	---	---	4 GAL IN 5 GAL CAN
	B	---	.2 GAL IN 1 QT. CAN	---	---	1 GAL IN 1 GAL CAN
E-1 (E-2)	A	.2 GAL IN 1 QT. CAN	.8 GAL IN 1 GAL CAN	1.6 GAL IN 2 GAL CAN	---	4 GAL IN 5 GAL CAN
	B	.05 GAL IN 1/2 PT. CAN	.2 GAL IN 1 QT. CAN	.4 GAL IN 1/2 GAL CAN	---	1 GAL IN 1 GAL CAN
D-1	A	.15 GAL IN 1 QT. CAN	.6 GAL IN 1 GAL CAN	1.2 GAL IN 2 GAL CAN	---	3 GAL IN 5 GAL CAN
	B	.1 GAL IN 1 PT. CAN	.4 GAL IN 1/2 GAL CAN	.8 GAL IN 1 GAL CAN	---	2 GAL IN 2 GAL CAN

5.2 Mixing

- 5.2.1 Mix the two components, Part A (Paint) and Part B (Converter), in the proportions furnished by volume as shown in TABLE 1 by stirring independently and then together.
DO NOT SUB-DIVIDE KITS.
- 5.2.2 Thoroughly mix the two components by "boxing" between two containers at least ten times, or as necessary to insure uniformity, ending with the mixture in the clean container.
- 5.2.3 Thin the mixture (if required for application), and "box" as necessary to obtain a uniform mixture (see TABLE 2 for maximum allowable thinning).
- 5.2.4 Power mixing is acceptable but it should be noted that such equipment induces heat which in turn could shorten the pot life significantly.
- 5.2.4.1 Consider the shorter pot life of Nos. 4000 and 6548-S when mixing.
- 5.2.4.2 It is recommended that Nos. 4000 and 6548-S not be catalyzed or mixed when the temperature of the coating material exceeds 85°F since the pot life will be reduced to an inconveniently short duration (See TABLE 3).

5.3 Thinning

- 5.3.1 Thin with No. 4093 EPOXY THINNER in the specified temperature range in accordance with TABLE 2.
- 5.3.2 It may be necessary to use No. 2200 EPOXY THINNER for temperatures in excess of 85°F in order to eliminate solvent entrapment or bubbling of the film.
- 5.3.3 The amount and type of thinner required depends upon temperature, humidity, elapsed time since mixing and the application method.
- 5.3.3.1 Thinning is not recommended for Nos. 4129 or 6548-S. For proper application, No. 4000 may require up to 1 pint per gallon of No. 4093 initially and up to 2 pints per gallon during the pot life.

This information is presented as accurate and correct, in good faith, to assist the user in specification and application. No warranty is expressed or implied. No liability is assumed. Product specifications are subject to change without notice.

APPLICATION GUIDELINES

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5.3.4 The amount of thinner added should maintain the following viscosity range for proper application:

PRODUCT	VISCOSITY METHODS		
	Krebs Units	Zahn #3 (Sec)	Sears (Sec)
No. 6548/7107	70-90	12-30	40-170
No. E-1 (E-2) Series	70-90	15-35	35-130
No. D-1 Series	70-95	18-47	79-240

TABLE 2- "THINNING GUIDE" (Maximum Allowable Thinning)

TEMPERATURE RANGE	METHOD	6548/7107	D-1-SERIES
		E-1 (E-2) SERIES	
55-70°F.	Brush/Roller/Airless Spray	0.5 pint/gallon	1.0 pint/gallon
	Air Spray	1.0 pint/gallon	1.5 pint/gallon
70-85°F.	Brush/Roller/Airless Spray	1.0 pint/gallon	2.0 pint/gallon
	Air Spray	1.5 pint/gallon	3.0 pint/gallon
85-100°F.	Brush/Roller/Airless Spray	1.5 pint/gallon	1.5 pint/gallon
	Air Spray	2.0 pint/gallon	2.5 pint/gallon
100-120°F.	Brush/Roller/Airless Spray	2.0 pint/gallon	1.0 pint/gallon
	Air Spray	3.0 pint/gallon	1.5 pint/gallon

5.4 Induction Period

5.4.1 Mix Part A (Paint) and Part B (Converter) and allow mixture to react in accordance with TABLE 3. (Induction time includes mixing time).

5.5 Pot Life

5.5.1 After mixing Part A (Paint) and Part B (Converter) the pot life of the mixture varies according to temperature as indicated in TABLE 3 (Pot life includes induction time).

5.6 Minimum Curing Time to Recoat

5.6.1 After application the minimum curing time before recoating and/or before exposure to temperature outside the application range is listed in TABLE 3.

5.6.2 Recoating after 2 hours is allowable where the coating is force cured within a temperature/time cycle of 150°F. for 30 minutes to 200°F. for 15 minutes.

5.6.3 Coating systems must be cured a minimum of 10 days at 70°F or more before being subjected to continuous immersion.

TABLE 3 - INDUCTION PERIOD, POT LIFE, MINIMUM CURING TIME TO RECOAT (LEVEL I AND II)

TEMP. RANGE	6548/7107 and E-1 (E-2) SERIES				D-1-SERIES			
	Induct. Time Mins.	Pot Life Hours	Minimum Curing Time to Recoat (Hours)		Induct. Time Mins.	Pot Life Hours	Minimum Curing Time to Recoat (Hours)	
			Level I	Level II			Level I	Level II
55-70°F.	60	12-8	72-48	24-18	45	8-4	72-48	24-18
70-85°F.	45	8-4	48-24	18-12	30	4-2	48-24	18-12
85-100°F.	30	4-2	24-12	12-8	15	2-1	24-12	12-8
100-120°F.	15	2-1	12-6	8-4	None	1-0	12-6	8-4
TEMP. RANGE	4000 and 6548-S				4129			
	Induct. Time Mins.	Pot Life Hours	Minimum Curing Time to Recoat (Hours)		Induct. Time Mins.	Pot Life Hours	Minimum Curing Time to Recoat (Hours)	
			Level I	Level II			Level I	Level II
55-70°F.	None	3-2	72-48	48-24	45	12-8	48-24	18-12
70-85°F.	None	2-1	48-24	24-12	30	8-4	24-12	12-8
85-100°F.	None	1-0	24-12	12-6	15	4-2	12-6	8-4
100-120°F.	Do Not Use		12-6	8-4	None	2-1	6-3	4-2

THE FIGURES REPORTED IN THIS TABLE MAY VARY BY ± 10%

6.0 CLEANLINESS

6.1 Application equipment used to apply all epoxy coating materials should be THOROUGHLY cleaned at least every eight hours or after each working shift.

6.2 In warm or hot weather (85-120°F.) equipment should be cleaned every four hours.

6.3 The reaction process of Nos. 4000 and 6548-S is rapid (1-2 hours pot life at 70-85°F.), and therefore is essential to clean equipment at least every four hours.

6.4 Clean up should be accomplished by using No. 4093, followed by a final rinse with Mineral Spirits.

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APPLICATION METHODS

ATTACHMENT 2D

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7.0 APPLICATION METHODS

7.1 The following methods apply to Nos. 4129, 6548/7107, E-1 (E-2) Series, D-1 Series, unless otherwise noted:

7.1.1 Brush

- 7.1.1.1 Apply with the proper size brush using either synthetic or natural type bristle.
- 7.1.1.2 A brush application should develop a smooth 4-6 mil wet film thickness.
- 7.1.1.3 For thinning use recommended thinners (Section 5.3) and recommended amount of thinner (TABLE 2).

7.1.2 Roller

- 7.1.2.1 Apply with proper size and nap as required.
- 7.1.2.2 Cover and nap should be solvent resistant.
- 7.1.2.3 For thinning use recommended thinners (Section 5.3) and recommended amount of thinner (TABLE 2).
- 7.1.2.4 Use No. 4093-B EPOXY ADDITIVE to eliminate bubbles introduced by roller application of E or D SERIES per Keeler & Long instructions.

7.1.3 Spray

- 7.1.3.1 Apply by air or airless spray in accordance with the following:

	4129	6548/7107	E-1 (E-2) SERIES	D-1-SERIES
Air Spray				
Nozzle Size	.055	.073	.055	.055
Pressure (psig)	40-60	40-60	40-60	40-60
Viscosity	As Furnished	72 ± 3 KU	72 ± 3 KU	72 ± 3 KU
Airless Spray				
Nozzle Size	.009-.015	.015-.021	.011-.017	.011-.017
Pressure (psig)	2000	2500	2500	2500
Viscosity	As Furnished	85 ± 5 KU	85 ± 5 KU	90 ± 5 KU
Fluid Hose Size	1/4"	1/4"	1/4"	1/4" - 3/8"

7.2 The following methods apply to Nos. 4000 and 6548-S:

7.2.1 Equipment

- 7.2.1.1 Airless Spray - The following airless spray equipment or equivalent is recommended to apply Nos. 4000 and 6548-S:

AIRLESS EQUIPMENT	BINKS B5-18	GRACO BULLDOG	GRACO KING
Orifice Size	.043	.041-.055	.041-.055
Pump Ratio	29:1	30:1	45:1
Input Pressure	75-100 psi	75-120 psi	75-90 psi
Fluid Hose Size	3/8"	1/2"	1/2"

7.2.1.2 Brush/Roller - A brush or roller is acceptable in order to apply Nos. 4000 and 6548-S.

- 7.2.1.2.1 Use proper size brush with either synthetic or natural bristle.
- 7.2.1.2.2 Use proper size solvent resistant roller with medium to long nap.
- 7.2.1.3 Squeegee - A squeegee is recommended to smooth out the initial application of the surfacer, and to fill all holes, voids, honeycombing and other surface imperfections to produce a pinhole free surface.
- 7.2.1.3.1 An 8-18" squeegee as manufactured by Greenview Manufacturing Co., Chicago, Illinois 60614, or equal, is recommended to produce a pinhole free surface.
- 7.2.1.3.2 The corners of the squeegee should be rounded or bevelled, and it should be wiped clean between passes to eliminate ridges during the application.

7.2.2 Application Sequence

- 7.2.2.1 Sealing - For the best results, a "Sealer" coat of No. 4129 is recommended prior to application of Nos. 4000 or 6548-S.
- 7.2.2.2 Patching - Holes larger than 1/4 inch in diameter will probably require a separate patching procedure, using either a cement grout or an epoxy surfacer approved for use in conjunction with the specified coating system.
- 7.2.2.3 Airless spray, brush or roller, using the equipment specified herein, is recommended to initially apply Nos. 4000 and 6548-S. A squeegee, or other suitable tool, is used immediately to smooth out the initial application.
- 7.2.2.3.1 Apply the minimum amount of surfacer that is required to fill the holes and voids and produce a 90% (approx.) pinhole free surface. It is not practical to spend an excessive amount of time to attain a 100% pinhole free surface during the first application.
- 7.2.2.4 A second application of surfacer, at least 24 hours later, is normally required to produce a 100% pinhole free surface. An average dry film thickness of 25 mils over the flat surface is recommended for the two combined applications.
- 7.2.2.5 It is necessary to produce a pinhole free surface prior to any application of finish coat, since the finish coat does not have the ability to fill pinholes.
- 7.2.2.6 A three man crew is recommended for this application procedure; one to apply the material and two squeegee men.

7.2.3 Other Application Methods

- 7.2.3.1 Broad Knife - A broad knife may be practical to use to patch or spot-fill holes to produce a pinhole free surface or to use instead of a squeegee.

COATING SERVICE LEVEL ONE (SYSTEMS)

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ATTACHMENT 2E

Coating Service Level One pertains to those coating systems, applied to structures, systems and components which are essential to the prevention of, or the mitigation of the consequences of postulated accidents that could cause undue risk to the health and safety of the public.

Coating Service Level One areas include the primary containment and other safety related areas where failure of the paint or coating system could adversely affect the orderly shutdown of the reactor in response to DBA conditions.

STEEL SURFACES

SURFACE PREPARATION — Carbon steel surfaces should be prepared in accordance with Steel Structures Painting Council specifications, using silica sand, grit or steel shot and a profile of 1.5-3.0 mils, as follows:

1. Immersion Service — SSPC, SP-5 White Metal Blast Cleaning
 2. Non-immersion Service —
 - Containment Areas — SSPC, SP-10 Near White Blast Cleaning
 - Auxiliary Areas — SSPC, SP-6 Commercial Blast Cleaning
- Surface preparation to repair damage resulting from welding, abrasion or field exposure should be in accordance with SSPC, SP-3 Power Tool Cleaning or SP-6, 10 and 5 as appropriate.



COATING SYSTEMS

- *SYSTEM S-1 (S-3), Epoxy, Multiple Coat Solvent Base
 - Primer — No. 6548/7107 Epoxy White Primer @ 3.0-14.0 mils DFT
 - Finish — No. E-1-7475 Epoxy White Enamel @ 2.5-6.0 mils DFT
- SYSTEM S-10, Epoxy, Multiple Coat Solvent Base
 - Primer — No. 6548/7107 Epoxy White Primer @ 5.0-12.0 mils DFT
 - Finish — No. D-1-9140 Epoxy Hi-Build White En. @ 3.0-6.0 mils DFT
- *SYSTEM S-11, Epoxy, Single or Multiple Coat Solvent Base
 - Primer/Finish No. 6548/7107 Epoxy White Primer @ 8.0-18.0 mils DFT
 - or No. 6548/7107 Epoxy White Primer @ 3.0-10.0 mils DFT*

CONCRETE SURFACES

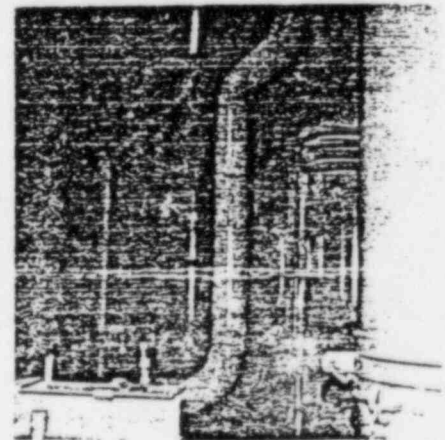
SURFACE PREPARATION — Concrete work shall be in accordance with the requirements of ACI 301-72 (revised 1975) Specification for Structural Concrete for Buildings.

Formed concrete surface should be coated within twenty-four hours following form removal with No. 4129 Epoxy Clear Curing Compound. (Water curing is also satisfactory). Form release agents or curing compounds NOT qualified to DBA criteria must be removed. (No. 4129 Epoxy Clear Curing Compound may also be used as a form release agent.)

Blast cleaning by water, air or abrasive is satisfactory as is chemical etching such as washing with Sulfamic Acid. The concrete or masonry surfaces may also be cleaned or neutralized using an alkaline wash such as a two pound per gallon of water solution of Tri-Sodium Phosphate.

COATING SYSTEMS

- SYSTEM KL-2, Epoxy, Multiple Coat Solvent Base
 - Curing Agt — No. 4129 Epoxy Clear Curing Comp. @ 0.5-3.0 mils DFT
 - Surfacer — No. 6548-S Epoxy Surfacer @ 5.0-50.0 mils DFT
 - Finish — No. E-1-7475 Epoxy White Enamel @ 2.5-6.0 mils DFT
- *SYSTEM KL-8 Epoxy Multiple Coat Solvent Base
 - Curing Agt — No. 4129 Epoxy Clear Curing Comp. @ 0.5-3.0 mils DFT
 - Surfacer — No. 6548-S Epoxy Surfacer @ flush-6.0 mils DFT
 - Finish — No. D-1-9140 Epoxy Hi-Build White En. @ 3.0-8.0 mils DFT
- *SYSTEM KL-9, Epoxy Multiple Coat Solvent Base
 - Curing Agt — No. 4129 Epoxy Clear Curing Comp. @ 0.5-3.0 mils DFT
 - Primer — No. 6548/7107 Epoxy White Primer @ 5.0-10.0 mils DFT
 - Finish — No. D-1-9140 Epoxy Hi-Build White En. @ 3.0-8.0 mils DFT
- SYSTEM KL-10, Epoxy Multiple Coat Solvent Base
 - Curing Agt — No. 4129 Epoxy Clear Curing Comp. @ 0.5-3.0 mils DFT
 - Surfacer — No. 4000 Epoxy Surfacer @ 5.0-50.0 mils DFT
 - Finish — No. D-1-9140 Epoxy Hi-Build White En. @ 3.0-6.0 mils DFT



*Qualified additionally to Hydrazine DBA condition, page 4.



TECHNICAL DATA FOR:

ATTACHMENT 2F

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	CURE	PRIMERS	SURFACERS		FINISHES	
	No. 4129 Epoxy Clear	No. 6548/7107 Epoxy White Primer	No. 4000 Epoxy Surfacer	No. 6548-S Epoxy Surfacer	No. E-1-Series Epoxy Enamel (7475 White)	No. D-1-Series Epoxy Hi- Build Enamel (9140 White)
COMPOSITION DATA						
Generic Type	Poly-amine	Poly-amine	Amine	Amine	Poly-amine	Poly-amine
Solids by Volume (±5%)	26.4%	67%	95%	89%	58%	72%
Solids by Weight (±5%)	30.5%	83%	95%	80%	67%	82%
Corrosion Inhibitor	Poly-amine	Poly-amine			Poly-amine	Poly-amine

COST DATA						
Theoretical Square Feet per Gallon	200	360	107	85	370	385
Dry Film Thickness at Theoretical						
Sq. Ft. per Gallon (mil)	200	360	107	85	370	385
*Cost per Sq. Foot (List Price)	\$0.25	\$0.21	\$0.10	\$0.19	\$0.24	\$0.27
Gallons per Ton of Structural Steel	1.0	1.0	1.0	1.0	1.0	1.0

PHYSICAL DATA						
Weight per Gallon (pounds)	12.5	11.6	15.1	13.6	10.0	11.2
Drying Time at 72°F (hrs)	4	8	8	8	6	6
To Touch	4	8	8	8	6	6
To Handle	8	16	16	16	12	12
To Recoat	24	24	24	24	24	24
Flash Point (Pensky-Martens Cup)	85°F	85°F	100°F	85°F	85°F	95°F
Shelf Life	one year	one year	one year	one year	one year	one year
Pot Life at 72°F (1 hr)	2-4	2-4	2-4	2-4	2-4	2-4
Drying Time at 72°F (2 hr)	2-4	2-4	2-4	2-4	2-4	2-4
Temperature Resistance	150°F	350°F	350°F	350°F	350°F	350°F
Weldability (MIG, TIG, Stick)	Good	Good	Good	Good	Good	Good
Gloss (60 degree)	95	95	10	95	95	95
Color	Clear	White	White	White	All Colors	All Colors

APPLICATION DATA						
Wet Film Thickness Range (mil)	10-20	10-20	10-20	10-20	10-20	10-20
Dry Film Thickness Range (mil)	10-20	10-20	10-20	10-20	10-20	10-20
Temperature Range (F)	55-120	55-120	55-120	55-120	55-120	55-120
Humidity (Dew Point - DP)	<80%	<80%	<80%	<80%	<80%	<80%
Induction Time (72°F)	1 hour	1 hour	10 minutes	10 minutes	1 hour	1 hour
Surface Preparation (SSPC)	SP 6-10-5	SP 6-10-5	SP 6-10-5	SP 6-10-5	SP 6-10-5	SP 6-10-5
Application Methods at 72°F						
Air Spray - Nozzle Size	0.055	0.073	0.055	0.055	0.055	0.073
Pressure (PSIG)	40-60	50-60	40-60	40-60	40-60	50-60
Viscosity (KU)	72±3	72±3	72±3	72±3	72±3	72±3
Airless Spray - Nozzle Size	0.011-0.015	0.015-0.021	0.041-0.055	0.041-0.055	0.013-0.017	0.013-0.017
Pressure (PSIG)	2500	2500	3500	3500	2500	2500
Viscosity (KU)	85±5	85±5	paste	paste	85±5	90±5
Fluid Hose Size	1/4"	1/4"	1/4"	1/4"	7/8±3	7/8±5
Brush or Roller Viscosity (KU)	78±5	78±5	paste	paste		
Squeegee Viscosity			paste	paste		
Flow Coat Viscosity (Sears Cup)						
Recommended Thinner	No. 4093	No. 4093	No. 4093	No. 4093	No. 4093	No. 4093

**Refer to Specific Epoxy Application Procedure Guides No. Q.A. 650, 651, 652, 653, 654, 655 for detailed instructions.

This information is presented as accurate and correct, in good faith, to assist the user in specification and application.
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