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PECORA-DECK™ 800

ONE PART POLYURETHANE DECK COATING

APPLICATOR TRAINING MANUAL

165 Wambold Road, Harleysville, PA 19438 • 1-800-523-6688 • 215-723-6051 • FAX 215-799-2518

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PECORA DECK 800
DECK COATING TRAINING MANUAL

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<u>The information presented here are guidelines only.</u> Deviation from published application procedures may be required per project specifications and/or site conditions and must be approved by Pecora Technical Services.

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SECTION #1
PECORA DECK COATING SYSTEMS

Introduction

Deck Coating Systems
Common Applications

System Specification Data Sheets:

Pecora Deck 800
(Single Component, Moisture Cure System)

Summarized Application Instructions:

Pecora Deck 8013	Pedestrian
Pecora Deck 8013HD	Heavy Duty Pedestrian
Pecora Deck 8013LM	Low Mod Epoxy Pedestrian
Pecora Deck 8123	Vehicular
Pecora Deck 8123HD	Heavy Duty Vehicular
Pecora Deck 8123HD-10	Heavy Duty Vehicular (10 Year System)
Pecora Deck 8123LM	Low Mod Epoxy Vehicular
Pecora Deck 8013PW	Plywood Decks
Pecora Deck 8113	Mechanical / Equipment Room
Pecora Deck 8213	Elevated Pool / Tennis Deck
Pecora Deck 8012	Under Carpet / Tile
Pecora Deck 8013QZ	Colored Quartz
Pecora Deck 8013VC	Vinyl Chips

Approved Polyurethane Joint Sealers:

Deck-Seal	(One part polyurethane joint sealer)
Dynatred	(Two part polyurethane joint sealer)
P-75 Primer	(Sealant primer)

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Deck Coating Systems

Pecora is a major supplier of Deck Coating Systems for vehicular and pedestrian applications. Millions of square feet have been waterproofed worldwide using these systems since 1990. Our customers have enjoyed expert technical service, architectural and engineering consultation, and a single source for their waterproofing needs.

Systems include VOC compliant deck coating for parking decks, balconies, plaza decks, mechanical equipment rooms, above grade pool and tennis decks, and heavy duty systems for stadiums. Specialty deck coating systems are available to address unique decorative or functional requirements.

Pecora Deck Coatings Systems are systems of polyurethane coatings; each designed to provide specific properties that enhance the quality of the total system.

The **802 Base Coat** is designed to have tenacious adhesion to the substrate so that, in the event of physical damage to the system, water cannot migrate beneath it. High elongation and tear strength combine to make a tough, resilient material able to open to span cracks that may develop in the substrate.

An **804 Intermediate Coat** is used in all heavy-duty systems. This coat binds the skid-resistant aggregate in the heart of the system, assuring a long service life. Its higher tensile strength and hardness provide a transition from the softer, crack-bridging Base Coat to the harder, wear-resistant Top Coat.

The **806 Top Coat** has a high tensile strength to ensure a long service life and excellent wear characteristics. Exterior topcoats use aliphatic polyurethane to eliminate chalking and provide exceptional resistance to UV damage. Good wearing properties, no chalking and excellent chemical and UV resistance assure the coating will provide long term performance and good aesthetics. *The 806 Top Coat is available in factory tinted and field tintable versions.* The field tintable version utilizes a neutral base and the **Pecora Deck-Pack Colorpack System** that includes over 40 standard colors. Use one (1) Deck-Pack of colorant per pail of field tintable deck coating neutral base. Custom colors are also available and may be provided in alternate packaging.

Dynapoxy Low-Mod Epoxy is a solvent-free, moisture insensitive, 100% solids, low modulus, two-component epoxy-based coating that permits quick turn-over of traffic areas on time-sensitive projects. Due to its high tensile strength, superior wear characteristics, and overall durability, this product is an excellent option for areas where heavy duty pedestrian and/or vehicular traffic is expected. The Dynapoxy Low-Mod may be incorporated into a variety of the existing Pecora Deck polyurethane deck coating systems as the primer, base coat and/or intermediate coat.

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PECORA DECK COATING SYSTEMS

I. What are Deck Coatings?

Deck Coatings consist of multiple layers of fluid applied compounds that cure to a tough elastomeric, resilient, waterproofing coating. When properly designed and formulated, these coatings are engineered systems that prevents water from entering the surface to which they are applied while providing a safe (non-slip) surface with pleasing aesthetics.

Engineered Systems will be elastomeric so as to span structural or shrinkage cracks that manifest in the concrete. The Base Coat must adhere tenaciously to the substrate so as to prevent the migration of water in the event of physical damage to the coating. Each component of the system must likewise have excellent adhesion to each other so each component can work as one, yet provide individual properties to enhance the system. The system must have a topcoat with a high tensile strength to withstand the rigors of pedestrian or vehicular traffic.

II. Why are Deck Coatings needed?

A. Deck Coatings protect the surface to which they are applied from the affects of water penetration.

1. Water penetrates concrete through open pores in the concrete left when the water used in the making of the concrete evaporates.

2. Water also penetrates concrete through shrinkage or structural cracks in the concrete.

3. In freeze-thaw areas, the water that enters the concrete freezes as it very slowly passes through. As you know, when water freezes it expands, exerting a lot of pressure from within the concrete. This outward pressure, eventually causes the concrete to break away. A condition known as "spalling". Spalled concrete allows even more water to enter into the concrete, resulting in more spalling and ultimately total deterioration of the concrete.

4. Concrete decks contain steel reinforcing bars to give strength to the concrete. Many balconies on high rise building are cantilever. These decks depend entirely on the steel to hold them up. Water enters the concrete via cracks; it causes the re-bars to oxidize (rust). Like frozen water, the oxidation grows and puts a great outward pressure on the concrete, resulting in the concrete breaking (spalling). The steel re-bars which are vitally important to the structural integrity of the concrete deck eventually deteriorates, jeopardizing the very existence of the balcony. In coastal areas where salt is continually present, the airborne chloride ion (salt) is on the deck surfaces and carried into the concrete with rain water. The salt enhances the deterioration process of the steel re-bar. Inland areas are not spared from the effects of salt as in the northern climates; salt is used on the roads to remove ice. This road salt is carried into parking garages along with accumulated ice. As the ice melts, it carries the salt into the cracks in the concrete.

B. Deck Coatings protect the area below the surface to which it is applied from the affects of water penetration.

1. Occupied space beneath a plaza deck, walkway, balcony, recreation deck, terrace, and other areas subject to walking (pedestrian) traffic.

   a. Water entering these areas from the deck above will cause

unsightly and perhaps very costly damage. (ie: Stained ceilings, damage to furniture, carpets, paintings, etc. Water in electrical fixtures can cause loss of power or fire.) In walkways, there is generally a plaster ceiling below, which will fall down in large pieces as the water penetrates the concrete.

2. On decks subject to vehicular traffic, there is usually parking decks below the top parking deck.

   a. Water penetrating a parking deck with automobiles parked below will seriously damage the paint finish. (ie: As the water goes through the concrete it collect efflorescence from within the concrete. This is a lime product and it damages the paint finish.)

   b. Quite often, there are retail stores or storage areas under a parking deck. In these areas, the parking deck is actually the roof of the stores or storage areas. As a roof, it must be waterproof and still have the ability to drive cars over it. A tough, elastomeric, water-proofing deck coating is the answer.

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COMMON APPLICATIONS FOR PECORA DECK COATING SYSTEMS

A. Where Pecora Deck Coating Systems are applied on structures:

1. TRAFFIC BEARING WATERPROOFING SYSTEMS
    a. Parking decks and garages
    b. Roof Top Helipads
    c. Ramps, loading docks or emergency entrances
    d. Mechanical equipment rooms (either interior or exterior)
    e. Walking decks
    f. Balconies
    g. Rooftop recreational areas
    h. Sun decks
    i. Elevated Tennis or Pool Decks
    j. "Eyebrows" which receive foot traffic
    k. Elevated Pedestrian walkways
2. MEMBRANE WATERPROOFING SYSTEMS
    a. Under tile (ceramic, thin set or quarry tile)
    b. Below-grade
    c. Planter boxes
    d. Split slab construction
    e. Plazas
3. FLUID APPLIED ROOFING SYSTEMS
    a. Roofing which will have window-washing equipment or considerable maintenance traffic
    b. Roofing or re-roofing over structural concrete
    c. "Eyebrows" that do not receive foot traffic
    d. Other

B. Type of structures where Pecora Deck Coating Systems are commonly specified:

1. Parking structures
2. High-rise office building
3. Sports stadiums
4. Hotels
5. Hospitals
6. Wastewater and sewage treatment facilities
7. Department stores
8. Shopping centers
9. Multi-Story Manufacturing facilities
10. Multi-Story Distribution centers
11. Detention facilities
12. Multi-Story Condominiums
13. Convention center
14. Apartment Buildings
15. Schools & Universities

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DECK COATING APPLICATION EQUIPMENT REQUIREMENTS

The following equipment will generally be required for applying polyurethane deck coatings and joint sealants. The list below is a guideline only and additional tools/materials may be required depending on the specific application and site conditions.

Joint Sealant Application

- Mixing paddle (for mixing of two-component sealants only)
- ½" heavy duty corded drill (for mixing of two component sealants only)
- Bulk caulking gun (for dispensing of two component sealants only)
- Standard caulking or sausage gun (for one component sealants only)
- Clean rags and/or paint brushes for sealant primer application, if required
- Xylene, mineral spirits or isopropyl alcohol for cleaning tools
- Large spatula for scraping/hand mixing of two component sealant pails
- Small spatula or caulking knife for tooling sealants
- Closed cell or bi-cellular backer rod (should be 25% larger than joint openings)
- Diamond grinder for chasing cracks in concrete
- Oil free compressed air or vacuum for cleaning joint substrates

Deck Coating Application and Detailing

- Five gallon mixing paddle – Jiffy Mixer #PS-1 or equivalent
- ½" heavy duty variable speed corded drill
- Long spatula (for scraping of pail and hand mixing of deck coatings)
- Long handled ¼" V-notched squeegee 30" width
- Long handled 1/8" V-notched squeegee 30" width
- Solvent resistant gloves
- Organic vapor masks
- Xylene or isopropyl alcohol for cleaning tools
- Shop rags
- Empty five (5) gallon metal pails for splitting contents of pails, if required
- Long handled paint roller applicator (standard and 2" width)
- Paint rollers – ½" nap (standard and 2" width for detailing)
- Steel spike shoes
- Mil gauges for measuring wet coating thickness

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PECORA DECK 8013
PEDESTRIAN

Application Instruction:

A. Surface preparation.

B. Prime concrete or plywood with Pecora P-801-VOC (<100g/L) or P-808 (<450g/L)[1] primer at 250 to 350 square feet per gallon. Allow primer to dry 1 – 8 hours.

C. Apply base coat of Pecora 802 Base Coat at 50 square feet per gallon using a ¼" notched squeegee. (Must apply base coat the same day as priming, otherwise reprime.)

D. Allow base coat to cure overnight (minimum). Coating should be firm but tacky.

E. Apply top coat of Pecora 806 Top Coat at 100 square feet per gallon using a 1/8" notched squeegee.

F. Broadcast 16-30 mesh aggregate[2] at 10-15 pounds per 100 square feet while the Pecora 806 Top Coat is still fluid.

G. Immediately back roll and completely encapsulate the aggregate with a ½" nap roller.

H. Cure 806 Top Coat for 48-72 hours prior to opening completed system to traffic.

Installed Thickness: mils (millimeters) excluding aggregate

	Wet	**Dry**
Base Coat	32 (.81)	26 (.67)
Top Coat	16 (.40)	11 (.28)
Total	**48 (1.21)**	**37 (.95)**

CAUTION: Pecora Deck 800 forms a non-breathing membrane and therefore is generally not used on-grade or outside on concrete surfaces poured over vapor barriers (such as unvented metal decks or between slab membranes). Consult Pecora Technical Service for applications on-grade, over unvented metal decks or concrete with between slab membranes.

[1] Check local VOC regulations for product compliance prior to installing deck coating primer.
[2] Employees using crystalline silica must wear an approved respirator if the exposure is above the permissible exposure level. Consult manufacturer's guidelines for safety practices.

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PECORA DECK 8013HD
HEAVY DUTY PEDESTRIAN

Application Instructions:

A. Standard surface preparation.

B. Prime concrete or plywood with Pecora P-801-VOC (<100g/L) or P-808 (<450g/L)[1] primer at 250 to 350 square feet per gallon. Allow primer to dry 1 – 8 hours.

C. Apply base coat of Pecora 802 Base Coat at 50 square feet per gallon using a ¼" notched squeegee. (Must apply base coat the same day as priming, otherwise reprime.)

D. Allow base coat to cure overnight (minimum). Coating should be firm but tacky.

E. Apply intermediate coat of Pecora 804 at 110 square feet per gallon using a 1/8" notched squeegee.

F. Broadcast aggregate into Pecora 804 using one of the following distribution methods:
Method #1 (Standard): Broadcast 16-30 mesh aggregate[2] at 10-15 pounds per 100 square feet while the Pecora 804 is still fluid. Immediately back roll to encapsulate.
Method #2 (Refusal): Broadcast 16-30 mesh aggregate[2] at 40 - 45 pounds per 100 square feet while the Pecora 804 is still fluid.

G. Allow intermediate coat to cure overnight. Coating should be firm but tacky. Sweep off excess sand (Method #2 only).

H. Apply Pecora 806 Top Coat at 100 square feet per gallon using a 1/8" notched squeegee. A reduced coverage rate can be expected over an aggregate to refusal system.

I. Cure 806 Top Coat for 48-72 hours prior to opening completed system to traffic.

INSTALLED THICKNESS: mils (millimeters) excluding aggregate

	WET	**DRY**
Base Coat	32 (.81)	26 (.67)
Intermediate Coat	14 (.36)	11 (.28)
Top Coat	16 (.41)	11 (.28)
Total	**62 (1.58)**	**48 (1.23)**

CAUTION: Pecora Deck 800 forms a non-breathing membrane and therefore is generally not used on-grade or outside on concrete surfaces poured over vapor barriers (such as unvented metal decks or between slab membranes.) Consult Pecora Technical Service for applications on-grade, over unvented metal decks or concrete with between slab membranes.

[1] Check local VOC regulations for product compliance prior to installing deck coating primer.
[2] Employees using crystalline silica must wear an approved respirator if the exposure is above the permissible exposure level. Consult manufacturer's guidelines for safety practices.

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PECORA DECK 8013LM PEDESTRIAN
Dynapoxy Low Mod Epoxy System

Application Instructions:

- **A.** Standard surface preparation.
- **B.** **Optional Primer & Base Coat Waterproofing:**
  - Prime concrete with Pecora P-801-VOC (<100g/L) or P-808 (<450g/L)[1] primer at 250 to 350 square feet per gallon. Allow primer to dry 1 – 8 hours.
  - Apply Pecora 802 Base Coat at 50 square feet per gallon using a ¼" notched squeegee. (Must apply base coat the same day as priming, otherwise reprime.)
  - Allow coating to cure overnight. Coating should be firm but tacky.
- **C.** Apply Pecora Dynapoxy Low Mod Epoxy with ¼" notched squeegee at 40 square feet per gallon.
- **D.** Immediately broadcast 12/20 or 16/30 aggregate[2] mesh size to refusal (40-45 pounds per 100 square feet) into wet Low Mod Epoxy coating.
- **E.** Allow Low Mod Epoxy to cure a minimum of 4 hours. Sweep off excess aggregate.
- **F.** **8013LM Standard and 8313LM Plywood Systems:** Proceed to step G.
  8013LM HD Heavy Duty System: Apply Pecora 804 Intermediate Coat at 110 square feet per gallon using a 1/8" notched squeegee or 1/2" lint free roller. A reduced coverage rate can be expected over an aggregate to refusal system
- **G.** Apply Pecora 806 Top Coat at 100 square feet per gallon using a 1/8" notched squeegee or 1/2" lint free roller. A reduced coverage rate can be expected over an aggregate to refusal system.
- **H.** Allow a minimum of 24 hours prior to opening to traffic when >40 °F, 48 hours <40 °F.

INSTALLED THICKNESS: mils (millimeters) excluding aggregate

8013LM Standard Pedestrian & 8313LM Plywood:

	WET	DRY
Optional 802 Base Coat	*32 (.81)*	*26 (.67)*
Dynapoxy Low Mod Epoxy	40 (1.01)	40 (1.01)
806 Top Coat	16 (.41)	11 (.28)
Total without Optional Base Coat	**56 (1.42)**	**51 (1.29)**
Total with Optional Base Coat	**88 (2.23)**	**77 (1.96)**

8013LM HD Heavy Duty Pedestrian:

Optional 802 Base Coat	*32 (.81)*	*26 (.67)*
Dynapoxy Low Mod Epoxy	40 (1.01)	40 (1.01)
804 Intermediate Coat	14 (.36)	11 (.28)
806 Top Coat	16 (.41)	11 (.28)
Total without Optional Base Coat	**70 (1.78)**	**62 (1.57)**
Total with Optional Base Coat	**102 (2.59)**	**88 (2.24)**

CAUTION: Pecora Deck 800 forms a non-breathing membrane and therefore is generally not used on-grade or outside on concrete surfaces poured over vapor barriers (such as unvented metal decks or between slab membranes.) Consult Pecora Technical Service for applications on-grade, over unvented metal decks or concrete with between slab membranes.

[1] Check local VOC regulations for product compliance prior to installing deck coating primer.
[2] Employees using crystalline silica must wear an approved respirator if the exposure is above the permissible exposure level. Consult manufacturer's guidelines for safety practices.

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PECORA DECK 8123
VEHICULAR

Application Instruction:

A. Surface preparation.

B. Prime concrete with Pecora P-801-VOC (<100g/L) or P-808 (<450g/L)[1] primer at 250 to 350 square feet per gallon. Allow primer to dry 1 – 8 hours.

C. Apply Pecora 802 Base Coat at 50 square feet per gallon using a ¼" notched squeegee. (Must apply base coat the same day as priming, otherwise reprime.)

D. Allow base coat to cure overnight (minimum). Coating should be firm but tacky.

E. Apply Pecora 804 Intermediate coat at 110 square feet per gallon using a 1/8" notched squeegee.

F. Broadcast aggregate into 804 using one of the following distribution methods:
Method #1 (Standard): Broadcast 12-20 mesh aggregate[2] at 10-15 pounds per 100 square feet while the Pecora 804 is still fluid. Immediately back roll to encapsulate.
Method #2 (Refusal): Broadcast 12-20 mesh aggregate[2] at 40 - 45 pounds per 100 square feet while the Pecora 804 is still fluid.

G. Allow intermediate coat to cure overnight. Coating should be firm but tacky. Sweep off excess aggregate (Method #2 only).
i. **Heavy Duty Traffic Areas[3]**: Refer to 8123HD system for application guidelines.

H. Apply top coat Pecora 806 at 100 square feet per gallon using a 1/8" notched squeegee. A reduced coverage rate can be expected over an aggregate to refusal system.

I. Cure 806 Top Coat for 48-72 hours prior to opening completed system to traffic.

INSTALLED THICKNESS: mils (millimeters) excluding aggregate

	WET	DRY
Base Coat	32 (.81)	26 (.67)
Intermediate Coat	14 (.36)	11 (.28)
Top Coat	16 (.41)	11 (.28)
Total	**62 (1.58)**	**48 (1.23)**

CAUTION: Pecora Deck 800 forms a non-breathing membrane and therefore is generally not used on-grade or outside on concrete surfaces poured over vapor barriers (such as unvented metal decks or between slab membranes.) Consult Pecora Technical Service for applications on-grade, over unvented metal decks or concrete with between slab membranes.

[1] Check local VOC regulations for product compliance prior to installing deck coating primer.
[2] Employees using crystalline silica must wear an approved respirator if the exposure is above the permissible exposure level. Consult manufacturer's guidelines for safety practices.
[3] Heavy duty traffic areas (drive lanes, turning radius, and ramps) as identified by the project owner.

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PECORA DECK 8123HD
HEAVY DUTY VEHICULAR

Application Instruction:

A. Surface preparation
B. Prime concrete with Pecora P-801-VOC (<100g/L) or P-808 (<450g/L)[1] primer at 250 to 350 square feet per gallon. Allow primer to dry 1 – 8 hours.
C. Apply Pecora 802 Base Coat at 50 square feet per gallon using a ¼" notched squeegee. (Must apply base coat the same day as priming, otherwise reprime).
D. Allow base coat to cure overnight (minimum). Coating should be firm but tacky.
E. Apply Pecora 804 Intermediate Coat at 110 square feet per gallon using a 1/8" notched squeegee.
F. Broadcast aggregate into 804 using one of the following distribution methods:
Method #1 (Standard): Broadcast 12-20 mesh aggregate[2] at 10-15 pounds per 100 square feet while the Pecora 804 is still fluid. Immediately back roll to encapsulate.
Method #2 (Refusal): Broadcast 12-20 mesh aggregate[2] at 40 - 45 pounds per 100 square feet while the Pecora 804 is still fluid.
G. Allow intermediate coat to cure overnight. Coating should be firm but tacky. Sweep off excess aggregate (Method #2 only).
H. Repeat steps "**E**" and "**F**"
I. Apply Pecora 806 Top Coat at 100 square feet per gallon using a 1/8" notched squeegee. A reduced coverage rate can be expected over an aggregate to refusal system.
J. Cure 806 Top Coat for 48-72 hours prior to opening completed system to traffic.

INSTALLED THICKNESS: mils (millimeters) excluding aggregate

	WET	**DRY**
Base Coat	32 (.81)	26 (.67)
Intermediate Coat	14 (.36)	11 (.28)
Intermediate Coat	14 (.36)	11 (.28)
Top Coat	16 (.41)	11 (.28)
Total	**76 (1.94)**	**59 (1.51)**

CAUTION: Pecora Deck 800 forms a non-breathing membrane and therefore is generally not used on-grade or outside on concrete surfaces poured over vapor barriers (such as unvented metal decks or between slab membranes). Consult Pecora Technical Service for applications on-grade, over unvented metal decks or concrete with between slab membranes.

[1] Check local VOC regulations for product compliance prior to installing deck coating primer.
[2] Employees using crystalline silica must wear an approved respirator if the exposure is above the permissible exposure level. Consult manufacturer's guidelines for safety practices.

PECORA DECK 8123HD-10
HEAVY DUTY VEHICULAR
10 Year System

Application Instruction:

A. Surface preparation
B. Prime concrete with Pecora P-801-VOC (<100g/L) or P-808 (<450g/L)[1] primer at 250 to 350 square feet per gallon. Allow primer to dry 1 – 8 hours.
C. Apply Pecora 802 Base Coat at 50 square feet per gallon using a ¼" notched squeegee. (Must apply base coat the same day as priming, otherwise reprime.)
D. Allow base coat to cure to cure overnight to a firm but tacky rubber.
E. Apply Pecora 804 Intermediate Coat at 110 square feet per gallon using a 1/8" notched squeegee.
F. Allow intermediate coat to cure overnight to a firm but tacky rubber.
G. Apply Pecora 806 Top Coat at 100 square feet per gallon using a 1/8" notched squeegee. Broadcast 12-20 mesh aggregate[2] at 10-15 lbs per 100 square feet. Immediately back roll with a ½" nap roller. Allow curing to a firm but tacky rubber.
H. Apply a second coat of Pecora 806 Top Coat at 100 square feet per gallon using a 1/8" notched squeegee. Broadcast 12-20 mesh aggregate[2] at 10-15 lbs per 100 square feet. Immediately back roll with a ½" nap roller. Allow curing to a firm but tacky rubber.
I. In all traffic lanes, exit, and entry ramps apply a third coat of Pecora Top Coat at 100 square feet per gallon.
J. Cure 806 Top Coat for 48-72 hours prior to opening completed system to traffic.

INSTALLED THICKNESS: mils (millimeters) excluding aggregate

	WET	**DRY**
Base Coat	32 (.81)	26 (.67)
Intermediate Coat	14 (.36)	11 (.28)
Top Coat	16 (.41)	11 (.28)
Top Coat	16 (.41)	11 (.28)
Top Coat (traffic lanes)	16 (.41)	11 (.28)
Total (including traffic lanes)	**94 (2.40)**	**70 (1.79)**

CAUTION: Pecora Deck 800 forms a non-breathing membrane and therefore is generally not used on-grade or outside on concrete surfaces poured over vapor barriers (such as unvented metal decks or between slab membranes.) Consult Pecora Technical Service for applications on-grade, over unvented metal decks or concrete with between slab membranes.

[1] Check local VOC regulations for product compliance prior to installing deck coating primer.
[2] Employees using crystalline silica must wear an approved respirator if the exposure is above the permissible exposure level. Consult manufacturer's guidelines for safety practices.

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PECORA DECK 8123LM VEHICULAR
Dynapoxy Low Mod Epoxy System

Application Instructions:

A. Standard surface preparation.
B. **Optional Primer & Base Coat Waterproofing:**
- Prime concrete with Pecora P-801-VOC (<100g/L) or P-808 (<450g/L)[1] primer at 250 to 350 square feet per gallon. Allow primer to dry 1 – 8 hours.
- Apply Pecora 802 Base Coat at 50 square feet per gallon using a ¼" notched squeegee. (Must apply base coat the same day as priming, otherwise reprime.)

C. Apply Pecora Dynapoxy Low Mod Epoxy with ¼" notched squeegee at 40 square feet per gallon.
D. Immediately broadcast 12/20 mesh aggregate[2] to refusal (40-45 pounds per 100 square feet) into wet Low Mod Epoxy.
E. Allow Low Mod Epoxy to cure a minimum of 4 hours. Sweep off excess aggregate.
F. Repeat steps C, D and F.
G. **Standard System:** Proceed to step H.
Heavy Duty System: Apply Pecora 804 Intermediate Coat at 110 square feet per gallon using a 1/8" notched squeegee or 1/2" lint free roller. A reduced coverage rate can be expected over an aggregate to refusal system.
H. Apply Pecora 806 Top Coat at 100 square feet per gallon using a 1/8" notched squeegee or 1/2" lint free roller. A reduced coverage rate can be expected over an aggregate to refusal system.
I. Allow a minimum of 24 hours prior to opening to traffic when >40 °F, 48 hours <40 °F.

INSTALLED THICKNESS: mils (millimeters) excluding aggregate

	WET	**DRY**
Standard:		
Optional 802 Base Coat	*32 (.81)*	*26 (.66)*
Dynapoxy Low Mod Epoxy (1st course)	40 (1.01)	40 (1.01)
Dynapoxy Low Mod Epoxy (2nd course)	40 (1.01)	40 (1.01)
806 Top Coat	16 (.41)	11 (.28)
Total w/out Optional Base Coat	**96 (2.43)**	**91 (2.30)**
Total w/ Optional Base Coat	**128 (3.24)**	**117 (2.96)**
Heavy Duty:		
Optional 802 Base Coat	*32 (.81)*	*26 (.66)*
Dynapoxy Low Mod Epoxy (1st course)	40 (1.01)	40 (1.01)
Dynapoxy Low Mod Epoxy (2nd course)	40 (1.01)	40 (1.01)
804 Intermediate Coat	14 (.36)	11 (.28)
806 Top Coat	16 (.41)	11 (.28)
Total w/out Optional Base Coat	**110 (2.79)**	**102 (2.58)**
Total w/ Optional Base Coat	**142 (3.60)**	**128 (3.24)**

CAUTION: Pecora Deck 800 forms a non-breathing membrane and therefore is generally not used on-grade or outside on concrete surfaces poured over vapor barriers (such as unvented metal decks or between slab membranes.) Consult Pecora Technical Service for applications on-grade, over unvented metal decks or concrete with between slab membranes.

[1] Check local VOC regulations for product compliance prior to installing deck coating primer.
[2] Employees using crystalline silica must wear an approved respirator if the exposure is above the permissible exposure level. Consult manufacturer's guidelines for safety practices.

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PECORA DECK 8013PW
PLYWOOD DECKS

Construction Guidelines for Plywood Decks

a. All plywood shall be identified as conforming to U.S. Product Standard PS 1 for Construction and Industrial Plywood by the grade-trademarks of the American Plywood Association. Use grade EXT APA B-C or EXT APA A-C.
b. Plywood should be a minimum 3/4 inch thickness with joist spacing 16" on center and must be properly blocked. Tongue and Groove plywood is preferred. Plywood should be continuous across two or more spans, with face grain across supports.
c. Install plywood in order to provide suitable panel edge support to prevent differential deflection between panels. In order to allow for expansion and contraction, space panels 1/16 in. at panel edges and at panel ends. Where wet or humid conditions are expected, these spacing may be increased.

Nailing

a. Use minimum 6d non-rusting deformed shank (ring-shanked or spiral-thread) nails. Space nails 6 in. o.c. along panel edges and 12 in. o.c. along intermediate supports. Nails should **NOT** be countersunk, but simply nailed flush.

Wall to Deck Flashing

a. All wall-to-deck flashing and under threshold flashing should be galvanized metal or copper and must be installed prior to the application of the base coat. The metal to plywood juncture must be detailed with P-802 Base Coat and reinforcing fabric. Prime all metal flashings with P-100 primer.

Surface Preparation

a. Apply polyurethane joint sealant to butt joints that are not tight and tool the sealant flush to the surface.
b. Along the juncture of all horizontal and vertical surfaces, tool polyurethane joint sealant to form a 1", 45 degree cant and allow the sealant to cure overnight.
c. Prime all areas to receive the reinforcing cloth and detail coat with P-801VOC or P-808 primer.
d. Apply 20 wet mil detail coat, 4" wide over all primed joints and metal. Immediately embed a strip of reinforcing cloth into the wet coat and backroll.
e. Apply a second detail coat over the strip of the same wet mils and feather edge the terminating edges. Allow to cure to a firm but tacky rubber.
f. Apply 30 wet mils of an 802 detail coat over all sealant cants and allow to cure to a firm but tacky rubber.

Application Instructions

I. Surface preparation as noted above.
J. Prime plywood with Pecora P-801-VOC (<100g/L) or P-808 (<450g/L)[1] primer at 250 to 350 square feet per gallon.
K. Apply base coat of Pecora 802 Base Coat at 50 square feet per gallon using a ¼" notched squeegee. (Must apply base coat the same day as priming, otherwise reprime.)
L. Allow base coat to cure overnight (minimum). Coating should be firm but tacky.
M. Apply top coat of Pecora 806 Top Coat at 100 square feet per gallon using a 1/8" notched squeegee.
F. While the Pecora 806 Top Coat is still fluid, broadcast 16-30 mesh aggregate[2] at 10-15 pounds per 100 square feet and immediately back roll with a ½" nap roller to completely encapsulate the aggregate[2].
H. Allow 806 Top Coat to cure for 48-72 hours prior to opening completed system to traffic.

Installed Thickness: mils (millimeters) excluding aggregate

	Wet	Dry
Base Coat	32 (0.81)	26 (0.67)
Top Coat	16 (0.40)	11 (0.28)
Total	**48 (1.21)**	**37 (0.95)**

CAUTION: Pecora Deck 800 forms a non-breathing membrane and therefore is generally not used on-grade or outside on concrete surfaces poured over vapor barriers (such as unvented metal decks or between slab membranes). Consult Pecora Technical Service for applications on-grade, over unvented metal decks or concrete with between slab membranes.

[1] Check local VOC regulations for product compliance prior to installing deck coating primer.
[2] Employees using crystalline silica must wear an approved respirator if the exposure is above the permissible exposure level. Consult manufacturer's guidelines for safety practices.

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PECORA DECK 8113
MECHANICAL / EQUIPMENT ROOM SYSTEM

Application Instruction:

A. Surface preparation.

B. Prime concrete with Pecora P-801-VOC (<100g/L) or P-808 (<450g/L)[1] primer at 250 to 350 square feet per gallon. Allow primer to dry 1 – 8 hours.

C. Apply Pecora 802 Base Coat at 50 square feet per gallon using a ¼" notched squeegee. (Must apply base coat the same day as priming, otherwise reprime.)

D. Allow base coat to cure overnight (minimum.)

E. Apply Pecora 806 Top Coat at 100 square feet per gallon using a 1/8" notched squeegee.

F. Broadcast 16-30 mesh aggregate[2] at 10-15 pounds per 100 square feet while the Pecora 806 is still fluid. Immediately back roll with a ½" nap roller and completely encapsulate the aggregate.

G. Cure 806 Top Coat for 48-72 hours prior to opening completed system to traffic.

INSTALLED THICKNESS: mils (millimeters) excluding aggregate

	WET	**Dry**
Base Coat	32 (.81)	26 (.67)
Top Coat	16 (.41)	11 (.31)
Total	**48 (1.22)**	**37 (0.98)**

CAUTION: Pecora Deck 800 forms a non-breathing membrane and therefore is generally not used on-grade or outside on concrete surfaces poured over vapor barriers (such as unvented metal decks or between slab membranes.) Consult Pecora Technical Service for applications on-grade, over unvented metal decks or concrete with between slab membranes.

[1] Check local VOC regulations for product compliance prior to installing deck coating primer.
[2] Employees using crystalline silica must wear an approved respirator if the exposure is above the permissible exposure level. Consult manufacturer's guidelines for safety practices.

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PECORA DECK 8213
ELEVATED POOL AND TENNIS DECK SYSTEM

Application Instructions:

A. Surface preparation

B. Prime concrete with Pecora P-801-VOC (<100g/L) or P-808 (<450g/L)[1] primer at 250 to 350 square feet per gallon. Allow primer to dry 1 – 8 hours.

C. Apply Pecora 802 Base Coat at 50 square feet per gallon using a ¼" notched squeegee. (Must apply base coat the same day as priming, otherwise reprime.)

D. Allow base coat to cure overnight (minimum.)

E. Apply Pecora 806 Top Coat at 200 square feet per gallon using a flat squeegee. Backroll for uniformity with a ½" nap roller.

F. Immediately broadcast 80 - 100 mesh aggregate[2] at 25 pounds per 100 square feet. Completely and uniformly cover all of the Pecora 806 Top Coat. Allow to cure overnight (minimum). Sweep off excess sand.

G. Repeat step E & F.

H. Apply a final top coat of Pecora 806 Top Coat at 125 square feet per gallon using a 1/8" notched squeegee. Backroll for uniformly with a ½" nap roller.

INSTALLED THICKNESS: mils (millimeters) excluding aggregate

	WET	**DRY**
Base Coat	32 (.81)	25 (.67)
1st. Sand Coat	8 (.20)	6 (.16)
2nd. Sand Coat	8 (.20)	6 (.16)
Top Coat	12 (.30)	9 (.23)
Total	**60 (1.51)**	**46 (1.2)**

CAUTION: Pecora-Deck 800 forms a non-breathing membrane and therefore is generally not used on-grade or outside on concrete surfaces poured over vapor barriers (such as unvented metal decks or between slab membranes.) Consult Pecora Technical Service for applications on-grade, over unvented metal decks or concrete with between slab membranes.

[1] Check local VOC regulations for product compliance prior to installing deck coating primer.
[2] Employees using crystalline silica must wear an approved respirator if the exposure is above the permissible exposure level. Consult manufacturer's guidelines for safety practices.

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PECORA DECK 8012
UNDER CARPET / TILE

Application Instruction:

A. Surface preparation.

B. Prime concrete with Pecora P-801-VOC (<100g/L) or P-808 (<450g/L)[1] primer at 250 to 350 square feet per gallon. Allow primer to dry 1 – 8 hours.

C. Apply base coat of Pecora 802 Base Coat at 50 square feet per gallon using a ¼" notched squeegee. (Must apply base coat the same day as priming, otherwise re-prime.)

D. Allow base coat to cure overnight (minimum).

E. Apply finish coat of Pecora 804 Intermediate Coat 110 square feet per gallon using a 1/8" notched squeegee.

F. **Under Tile:** Broadcast 16-30 mesh aggregate[2] to refusal (40-45 pounds per 100 square feet) while the Pecora 804 Intermediate Coat is still fluid. Sweep off excess aggregate.

Under Carpet: Aggregate broadcast is not required for under carpet systems.

- (*Optional aggregate broadcast if needed for adhesive purposes*) Broadcast 16-30 mesh aggregate[2] to refusal (40-45 pounds per 100 square feet) while the Pecora 804 Intermediate Coat is still fluid. Sweep off excess aggregate.

G. Allow coating to cure for a minimum of 48 hours prior to applying carpet adhesive or thinset mortar over completed system.

Installed Thickness: mils (millimeters) excluding aggregate

	WET	**DRY**
Base Coat	32 (.81)	26 (.67)
Intermediate Coat	14 (.36)	11 (.28)
Total	**46 (1.17)**	**37 (0.95)**

CAUTION: Pecora Deck 800 forms a non-breathing membrane and therefore is generally not used on-grade or outside on concrete surfaces poured over vapor barriers (such as unvented metal decks or between slab membranes). Consult Pecora Technical Service for applications on-grade, over unvented metal decks or concrete with between slab membranes.

[1] Check local VOC regulations for product compliance prior to installing deck coating primer.
[2] Employees using crystalline silica must wear an approved respirator if the exposure is above the permissible exposure level. Consult manufacturer's guidelines for safety practices.

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PECORA DECK 8013QZ PEDESTRIAN
(Colored Quartz Aggregate Option)

Application Instruction:

A. Surface preparation.

B. Prime concrete with Pecora P-801-VOC (<100g/L) or P-808 (<450g/L)[1] primer at 250 to 350 square feet per gallon. Allow primer to dry 1 – 8 hours.

C. Apply base coat of Pecora 802 Base Coat at 50 square feet per gallon using a ¼" notched squeegee. (Must apply base coat the same day as priming, otherwise reprime.)

D. Allow base coat to cure overnight (minimum).

E. Apply Pecora 806 Top Coat at 100 square feet per gallon using a 1/8" notched squeegee.

F. Broadcast 30-50 mesh decorative quartz aggregate[2] to refusal (~50 lb./per 100 square feet) while the Pecora 806 Top Coat is still fluid.

G. Allow the 806 Top Coat to cure overnight. Sweep off excess aggregate.

H. Apply 806 Clear Top Coat at 80 square feet per gallon using a 3/16" notched squeegee. Backroll with 1/2" nap roller for even coverage. A reduced coverage rate can be expected over an aggregate to refusal system.

I. Allow Top Coat to cure 24-48 hours prior to opening to traffic.

Installed Thickness: mils (millimeters) excluding aggregate

	Wet	**Dry**
Base Coat	32 (.81)	26 (.67)
Top Coat	16 (.40)	11 (.28)
Clear Top Coat	20 (.51)	11 (.28)
Total	**68 (1.72)**	**48 (1.23)**

CAUTION: Pecora Deck 800 forms a non-breathing membrane and therefore is generally not used on-grade or outside on concrete surfaces poured over vapor barriers (such as unvented metal decks or between slab membranes). Consult Pecora Technical Service for applications on-grade, over unvented metal decks or concrete with between slab membranes.

[1] Check local VOC regulations for product compliance prior to installing deck coating primer.
[2] Employees using crystalline silica must wear an approved respirator if the exposure is above the permissible exposure level. Consult manufacturer's guidelines for safety practices.

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PECORA DECK 8013VC PEDESTRIAN
(Decorative Vinyl Chip Option)

Application Instruction:

A. Surface preparation.
B. Prime concrete with Pecora P-801-VOC (<100g/L) or P-808 (<450g/L)[1] primer at 250 to 350 square feet per gallon. Allow primer to dry 1 – 8 hours.
C. Apply base coat of Pecora 802 Base Coat at 50 square feet per gallon using a ¼" notched squeegee. (Must apply base coat the same day as priming, otherwise reprime.)
D. Allow base coat to cure overnight (minimum).
E. Apply Pecora 806 Top Coat at 100 square feet per gallon using a 1/8" notched squeegee.
F. Broadcast 16-30 mesh aggregate[2] at 10-15 pounds per 100 square feet while the Pecora 806 Top Coat is still fluid. Immediately backroll to encapsulate the aggregate.
G. While the Pecora 806 Top Coat is still fluid, broadcast 2mm decorative vinyl chips at a rate of 2 lbs./100 ft^2 (as shown below).

H. Allow the 806 Top Coat to cure overnight.
I. Apply 806 Clear Top Coat at 80 square feet per gallon using a 3/16" notched squeegee. Backroll with 1/2" nap roller for even coverage.
J. Allow Top Coat to cure 24-48 hours prior to opening to traffic.

Installed Thickness: mils (millimeters) excluding aggregate

	Wet	**Dry**
Base Coat	32 (.81)	26 (.67)
Top Coat	16 (.40)	11 (.28)
Clear Top Coat	20 (.51)	11 (.28)
Total	**68 (1.72)**	**48 (1.23)**

CAUTION: Pecora Deck 800 forms a non-breathing membrane and therefore is generally not used on-grade or outside on concrete surfaces poured over vapor barriers (such as unvented metal decks or between slab membranes). Consult Pecora Technical Service for applications on-grade, over unvented metal decks or concrete with between slab membranes.

[1] Check local VOC regulations for product compliance prior to installing deck coating primer.
[2] Employees using crystalline silica must wear an approved respirator if the exposure is above the permissible exposure level. Consult manufacturer's guidelines for safety practices

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PECORA DECK 800
COLORED QUARTZ AND VINYL CHIP SYSTEM
COLOR SELECTION GUIDELINES

The Pecora Deck 8013QZ and 8013VC pedestrian polyurethane deck coating systems utilize a clear, aliphatic, single component top coat which allows the addition of colored quartz and vinyl chip blends. Be aware that Pecora does not manufacture or provide the quartz and vinyl chip blends.

Based on extensive field and laboratory compatibility testing, Pecora recommends the use of Estes' brand colored quartz and vinyl chip blends. Estes' offers a variety of these blends as represented in the links below:

Estes' Quartz Blends: http://appliedflooringtechnologies.com/wp-content/uploads/2013/12/Quartz.pdf

Estes' Vinyl Chip Blends: http://estesco.com/wp-content/uploads/2015/12/EstesChipsBlends-150730-print1.pdf

The building owner, architect, and/or applicator are responsible for colored aggregate color selection and approval. Representative mock ups are highly recommended in order to review and approve the final appearance of the selected system.

Per the Pecora Deck 8013QZ and 8013VC system application instructions (pages 19 & 20 respectively), the colored aggregates are broadcast into the 806 top coat while it is still fluid as indicated in "Step E" followed by the application of the 806 Clear Top Coat. Be aware that the standard 806 top coat applied in "Step E" is tinted which may be visible through the colored aggregates and as a result, color selection of the tinted 806 top coat will be a contributing factor to the overall appearance of the installed system.

Estes' products can be purchased through participating distributors. Please contact Estes' for more information regarding where to purchase.

Estes' contact information: http://estesco.com/permacolorquartz/contact/

Pecora Technical Service can be reached at 1-800-355-8817 or techservices@pecora.com

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SECTION #2

DESIGN GUIDELINES

Design Guide for Concrete Substrates
Concrete Finishing & Curing
Design Guide for Plywood Substrates

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PECORA DESIGN GUIDE FOR CONCRETE SUBSTRATES TO RECEIVE ELASTOMERIC MEMBRANE OR DECK COATING SYSTEMS

1. GENERAL

In general, properly designed structures where concrete is under compression and properly cured will have hairline cracks only. When the surface of the concrete is under tension, structural cracks can be expected and steps must be taken to control their location to permit suitable reinforcement. This can be done by distributing stresses over the entire deck and by proper location of rebar and control joints. Stresses can be distributed by continuous reinforcement steel such as #4 installed in both directions on 12" centers near the top of surface of the slab.

Concrete structures to receive Pecora Deck Coating Systems should be sloped to freely drain. Adequate drainage reduces accumulation of sediments, which can cause discoloration, reduce thermal reflectivity and provide a hazard to foot traffic. Installation of drains is preferable to drainage to an edge, which may soil the building fascia. In addition, the lack of slope with these systems can lead to possible leaks at low thresholds, puddles and surface staining for which the applicator does not assume responsibility. The Pecora systems cannot be used to provide such a slope.

Most concrete surfaces contain surface porosity capable of transmitting gases. Under some temperature conditions, gas transmission can cause blister development in elastomeric coatings. The Pecora P-808 primer functions to close off and span surface pores and allows installation of optimum elastomeric films. The primer is recommended for all concrete surfaces and considered essential on lightweight structural concrete and vehicular applications.

2. STRUCTURAL CONCRETE

2.1 Acceptable Construction: Most thin shell shapes are under compression and acceptable. Since planar roof decks, flat or sloping, including the top and bottom slabs of bent plate roofs, usually include areas under tension, special attention to crack control should be given. Thin slabs poured on wire mesh or high rib are especially prone to cracking and should not be used without discussion with Pecora Corporation. Similarly, pre-cast slabs, with or without a fill, can impose special problems of differential vertical movement between slabs. Pecora Deck Systems should not be used in these situations without prior discussion with Pecora Corporation. Pre-stressed or post-tension cast-in-place slabs are suitable as a base.

2.2 Ventilation: Metal decking used as concrete form must be of the "ventilating type" to relieve pressure underneath the concrete fill. Concrete slabs used as interior ceilings should not be painted or sealed on the under side until the slab is dry and acceptable by the waterproofing contractor.

2.3 CONCRETE REQUIREMENTS

1.31 Mix: Design and controls, materials mixing and placing should follow ASTM C-94 Water-cement ratios should be as low as practicable. An air-entraining admixture may be used to improve workability of the concrete and freeze-thaw resistance.

1.32 Finishing: Finishing should be delayed until the concrete has hardened sufficiently to prevent excess fine material from working to the surface. A slightly sand-textured surface is desired. The end results should be neither slick nor burnished, (which impairs adhesion) nor rough with fins, sharp projections, voids or rock pockets (which cause blisters). Vibrators or "stingers" shall not be used.

Suggested Finishing Specifications for Concrete, Section 3300, are as follows:

"Finish shall be steel troweled. The surface shall be uniform without being slick or burnished and shall have a slight sand texture or light broom finish. It shall be free from voids or sharp projections. Voids, rock pockets and excessively rough surfaces shall be finished with a grout or ground to match the unrepaired areas. The grout and bonding agent shall be non-staining and the composition approved by the architect prior to application. Dusting the surface with Portland cement or a mixture of sand and cement shall not be permitted.

3. LIGHTWEIGHT STRUCTURAL CONCRETE

Lightweight structural aggregate generally consists of expanded shale or naturally occurring minerals or air-entraining additives with a foamed structure. Normally, the compressive strengths of the cured concrete based on this aggregate are not less than 2500 psi.

3. 1 Acceptable Construction: Same as par 2.1 above

3.2 Ventilation: Same as par. 2.2 above

3.3 Concrete Requirements:

3.31 Mix: Same as par. 2.31 above

3.32 Finishing: Same as par 2.32 above

3.33 Drying: Lightweight structural aggregate tends to absorb excess water, which requires additional drying time and leads to increased shrinkage cracks. After curing period, deck shall be allowed to dry a minimum of 4 to 6 weeks before coating. If rain occurs after the drying period and prior to application of P-808 primer, allow at least two days of good drying weather

4. LIGHTWEIGHT INSULATING CONCRETE FILLS

Lightweight insulating concrete generally utilizes vermiculite or perlite aggregate. INSULATING CONCRETE FILLS ARE NOT SUITABLE SUBSTRATES FOR PECORA-DECK COATING SYSTEMS. In an effort to assist you and the General Contractor in providing the proper concrete finish for receiving the Pecora Polyurethane Coating systems we recommend that the following important points be adhered to:

1. Finishing:

So as to density the concrete, the top surface of the slab must be steel troweled with a power trowel, **twice**. After the second steel troweling has been completed, finish the concrete by lightly pulling a **light or soft hair broom** over the surface so as to leave a **light** texture in the concrete.

2. Curing:

Water curing is preferred. However, if a curing compound is to be used, it must be of the pure **sodium-silicate type.** No resins, waxes or additional additives are allowed. Some of the curing compounds approved are:

a. "Demicon," manufactured by Robertson Steel Co., Detroit, Michigan.

b. 1125 Silicate Cure manufactured by EDECO Division of Burke,

Long Beach, California

c. "Clear Seal," manufactured by Anti-Hydro Waterproofing Company, Newark, New Jersey

d. J-12 Crete Cure Manufactured by Dayton Superior, Oregon, Illinois

No other curing compounds are acceptable without prior approval by the Pecora Technical Service Group

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PECORA DESIGN GUIDE FOR PLYWOOD SUBSTRATES

1. CONSTRUCTION GUIDELINES FOR PLYWOOD DECK

a. All plywood shall be identified as conforming to U.S. Product Standard PS 1 for Construction and Industrial Plywood by the grade-trademarks of the American Plywood Association. Use grade EXT APA B-C or EXT APA A-C.

b. Plywood should be a minimum 3/4 inch thickness with joist spacing 16" on center and must be properly blocked. Tongue and Groove plywood is preferred. Plywood should be continuous across two or more spans, with face grain across supports.

c. Install plywood in order to provide suitable panel edge support to prevent differential deflection between panels. In order to allow for expansion and contraction, space panels 1/16 in. at panel edges and at panel ends. Where wet or humid conditions are expected, these spacing may be increased.

2. NAILING

a. Use minimum 6d non-rusting deformed shank (ring-shanked or spiral-thread) nails. Space nails 6 in. o.c. along panel edges and 12 in. o.c. along intermediate supports.

b. Nails should **NOT** be countersunk, but simply nailed flush.

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SECTION #3

SURFACE PREPARATION GUIDE

Surface Preparation for Polyurethane Coatings
(Acid Etching, Shot Blasting, Sand Blasting)
Mechanical Methods for Preparing Contaminated Concrete
(Shot-blasting, Scabbling, Scarifying)
Joint Sealant Application
Deck Coating Detailing

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SURFACE PREPARATION FOR POLYURETHANE COATING SYSTEMS

A. Concrete (New Construction)

1. General Construction Practices

   a. Concrete surfaces to receive Pecora Vehicular Deck Coating System must have a minimum compressive strength 4,000 psi.

   b. Concrete surfaces to receive Pecora Pedestrian Deck System should have a minimum compressive strength of 3,000 psi.

   c. Insulating concretes (Zonolite, Vermiculite, and etc.) must NEVER be coated directly with a Pecora Polyurethane Coating System.

   d. Perlite or Polystyrene foam must never be coated directly. Concrete topping or wearing slabs are necessary in order to isolate the foam.

   e. Structural concrete must have a full 28 day curing period prior to application of the Pecora Polyurethane Coating System.

2. Finish Requirements (See Special Section on Finishing and Curing)

   a. The concrete decks are to be steel troweled followed with a light broom ("sidewalk") finish to achieve an ICRI surface finish of CSP 3-5. No ridges, projections or voids should be present in the finished concrete

   b. Water curing is the preferred method for curing the concrete deck.

   c. If a curing compound is used, it must be of the "pure" sodium silicate variety; **NO** chlorinated rubber, wax, or resin-based curing compound can be used.

   d. The decks must be free from contaminates such as tars, asphalts, grease, dirt, etc., prior to coating.

3. Acid Etching, Shot-Blasting and Sandblasting

   a. The decks should be acid etched with 18° or 20° Baum muriatic acid to remove laitance on the concrete surfaces. [Dilute the acid by mixing 18° or 20° Baum acid (28% or 30% solution) with equal parts of clean water.]

   b. Once the acid solution has stopped all action (after 15 to 30 minutes) supply a neutralizer to the deck consisting of 10% ammonia in water.

   c. Be sure to thoroughly was and flush the resulting residue completely off the deck prior to applying the deck coatings.

   d. In most instances, Shot-Blasting or Sandblasting is recommended in lieu of acid etching of environmental reasons or when necessary to remove an unacceptable curing compound or

contaminate. On exterior decks shot-blasting or sandblasting does not eliminate the need for priming with Pecora P-808 primers.

e. Excessive Sandblasting can cause "pinholes" in the concrete surfaces which in turn could blister problems during application of the base coating and possibly even blisters in the finished system.

4. Crack Preparation

a. All visible cracks must be coated with a "detail coat" of Pecora 802. One coat should achieve the required 30 mils minimum.

b. Large cracks should first be routed and filled flush with Pecora Dynatred polyurethane sealant prior to applying the detail coats (step "a".)

c. The primer and coating materials used as the detail coat for cracks should minimum 6" width centered over the crack. Install the caulking only in the crack. **Do not** butter or featheredge the caulking beyond the edge of the crack. See Deck Coating Detailing section for more details.

B. Concrete (Remedial Construction)

1. General Construction Practices

Same psi compressive strength requirements as for new conditions.

2. Finish Requirements

Same troweling and texture requirements as for new construction.

3. Cleaning

a. Deck should be cleaned using tri-sodium phosphate and water, and a stiff bristle broom or power scrubber. Completely rinse away residue. Citric acid based concentrated degreaser and cleaner may also be used.

b. Heavily contaminated areas may require mechanical cleaning, grinding or scraping before power washing or scrubbing.

c. Once the concrete is thoroughly clean, acid etch the deck as new construction. (In cases of heavy penetration of surface contaminants, sandblasting or shot-blasting may be necessary.

4. Repairing

Areas that have spalled off or have been ground out should be patched using a mortar consisting of epoxy and sand. (100% solid epoxy with no solvent or oil modifications.)

5. Crack Preparation

Same as with new construction.

C. Plywood

1. Damaged Plywood

   All damaged or surface contaminated plywood must be replace prior to application of the base coat.

2. Nailing

   a. Nails used should be non rusting and should be spiral or "non-backing" nails (Barbed, spiral or ring shanked).

   b. Nails should **NOT** be countersunk, but simply nailed flush.

3. Wall to Deck Flashing

   All wall-to-deck flashing and under threshold flashing should be galvanized metal or copper and must be installed prior to the application of the base coat. The metal to plywood juncture must be detailed with P-802 Base Coat and reinforcing fabric. **Prime all metal flashings with P-100 primer.**

4. Joint Preparation.

   Joints at changes in plane, or expansion details should be caulked and treated as expansion joints or detailed with galvanized sheet metal or with 60 mil neoprene sheet. All other joints in plywood should be caulked flush and receive a detail coat of Pecora 802 into which is embedded synthetic reinforcing fabric. See Deck Coating Detailing section for more details.

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MECHANICAL METHODS FOR PREPARING CONTAMINATED CONCRETE

1. Shot Blasting

Shot blasting propels steel onto a surface to roughen it and remove coating and contaminants. Whether hand-held or walk-behind, the blasting equipment includes an enclosed blast chamber that recovers and separates dust and reusable steel shot. Because the abrasive and pulverized concrete are recovered, the system creates only very low levels of airborne dust and debris.

Shot blasting can remove embedded dirt, laitance, curing compounds, sealers, and conventional coatings up to 10 mils thick, tile mastics, and brittle coatings up to 1/16 in. thick. Shot blasting is the preferred method for preparing concrete decks.

2. Grinding

Grinding is performed with hand-held or walk-behind machines that rotate abrading stones or discs under pressure at right angles to the concrete surface. The purpose of grinding is typically to remove coatings less than 6 mils in thickness, mineral deposits, and slight protrusions on a concrete surface. Excessive grinding can smooth out a surface. If the needed surface profile is lost, other preparation methods must be used along with grinding

Portable, hand-held grinders can be used on horizontal as well as vertical surfaces. Larger, walk-behind grinders are best suited to horizontal surfaces.

3. Abrasive Blasting

Air abrasive blasting with conventional media such as silica sand or slag is used to create a light profile on concrete or, when used more aggressively, to perform deep cleaning and profiling. Rigid coatings that are 4 to 10 mils thick and some surface contaminants can also be removed by abrasive blasting.

Air abrasive blasting is conducted with hoses and nozzles attached to blast pots, air compressors, and oil and moisture separators. Abrasive blasting can produce profiles suitable for applying protective sealers, coatings and concrete or epoxy
toppings ranging from 20 mils to 250 mils. Abrasive blasting on concrete typically produces a large amount of airborne dust from the fractured abrasive and fractured concrete.

4. Scarifying

Scarifying is performed with a rotary impact tool made of cutters (toothed washers) assembled on tempered steel rods. The rods are attached to a drum. The tool is held at a right angle to the concrete surface. When the drum rotates, the cutters strike the surface, fracturing or
pulverizing the concrete. Units range from small, hand-held tools suitable for vertical and overhead application to larger, walk-behind units for horizontal surfaces.

The method can be used to remove brittle coatings up to 1/8 in. (3 mm) thick, deteriorated or contaminated concrete from 1/8 to 3/4 in. (3 to 19 mm), high spots to smooth out surfaces, and adhesives. The method can also be used to profile concrete surfaces so that they can receive coatings above 40 mils in thickness, self-leveling systems, broadcast systems, or thin overlays.

Surfaces grinding or the installation of an epoxy or concrete overlay would be necessary prior to application of the Pecora Deck Coating.

5. Scabbling

Scabblers are used to remove coatings or contaminated concrete by chipping the concrete with piston-driven cutting heads placed at a right angle to the surface. Compressed air drives the heads.

Large walk-behind scabblers are used for decks and other horizontal surfaces. Brittle coatings up to 1/4 in. thick and concrete up to 3/4 in. thick be removed by scabbling. Scabbling can also be used to create deep profiles on concrete surfaces, such as would be required to apply concrete or epoxy overlays of 1/8 in. or greater thickness.

Scabbling is not appropriate for removing gummy or rubbery materials, such as elastomeric coatings, and this method is likely to produce microcracking in the concrete. The installation of a concrete or epoxy topping would be necessary prior to applying the Pecora Deck Coating System.

6. Waterjetting

Waterjetting can be used in pressures varying from 5,000 to 45, 000 psi to remove water soluble contaminants, laitance, efflorescence, weak or deteriorated concrete down to 3/4 in. in depth and coatings up to 10 mils in thickness. Waterjetting is generally used outside and in areas that can tolerate mists, loud noise, and deep puddling. Surfaces which are cleaned by waterjetting will need the application of an extra base coat prior to the application of Pecora Deck Coating System.

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JOINT SEALANT APPLICATION

Static (non-moving) cracks greater than 1/16" in width, changes in plane and any projections through deck must be caulked prior to deck coating application. Dynamic (moving) cracks less than 1/16" in width should be saw cut to a minimum 1/4" wide by 1/2" deep. Thoroughly clean all saw cut cracks, expansion and control joints. All substrates must be clean and dry at time of primer and sealant application. Pecora P-75 sealant primer is required on concrete and masonry substrates. Pecora P-120 sealant primer is required on steel and other non-porous substrates. Allow primer to dry 1 – 8 hours. Reapply primer is dry time exceeds 8 hours.

Recommended Pecora Polyurethane Joint Sealants:

- Dynatred Two-Part Traffic Grade Joint Sealant
- Deck-Seal One-Part General Purpose Joint Sealant

Saw Cuts, Expansion & Control Joints

- Thoroughly clean and dry all substrates to be sealed.
- Install closed cell backer rod. Backer rod should be compressed 25% when installed.
- Apply appropriate sealant primer.
- Apply polyurethane joint sealant at the proper configuration. Generally, a 2:1 sealant width to depth ratio is recommended.
- Tool sealant flush with the traffic surface.
- Allow sealant to cure overnight.

Changes in Plane & Projections through Deck

- Thoroughly clean and dry all substrates to be sealed.
- Install closed cell backer rod or bond breaker tape, where applicable.. Backer rod should be compressed 25% when installed.
- Apply appropriate sealant primer.
- Apply polyurethane joint sealant at the juncture of all changes in plane and any projections through the deck, curbs, walls, etc.
- Tool sealant to form a one-inch, 45 degree cant.
- Allow sealant to cure overnight.

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DECK COATING DETAILING

Cracks and areas that have been caulked with a joint sealant must be detailed with Pecora 802 Base Coat. Areas to receive a detail coat must be primed with either P-801VOC or P-808 primer prior to detailing. The primer should be applied at the standard coverage rate and allowed to dry one to eight hours. At changes in plane, the detail coat should be applied a minimum 6" up the vertical surface. All detail coats should be allowed to cure to a firm but tacky rubber before proceeding with full scale primer and base coat application. Generally, an overnight cure is required but ultimately, site conditions will dictate cure rate.

Concrete

Apply a detail coat over all cracks less than 1/16", expansion and control joints and any areas that have been sealed with a joint sealant. Prime all areas to receive a detail coat with P-808 primer. The detail coat should be 6" wide and 30 wet mils thick. Apply 30 wet mils of the detail coat over sealant cants and joints less than ½" wide. Do not apply the coating over expansion joints wider than ½". Allow to cure to a firm but tacky rubber.

Plywood

Apply joint sealant to butt joints that are not tight and tool the sealant flush to the surface. Along the juncture of all horizontal and vertical surfaces, tool joint sealant to form a 1", 45 degree cant and allow the sealant to cure overnight. Prime all areas to receive the reinforcing cloth and detail coat with P-801VOC or P-808 primer. Apply 20 wet mil detail coat, 4" wide over all primed joints and metal. Immediately embed a strip of reinforcing cloth into the wet coat and backroll. Apply a second detail coat over the strip of the same wet mils and feather edge the terminating edges. Allow to cure to a firm but tacky rubber. Apply 30 wet mils of an 802 detail coat over all sealant cants and allow to cure to a firm but tacky rubber.

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SECTION #4

INSTALLATION PRECAUTIONS

Temperature Limitations
Aggregate
ADA Slip-Resistance Guidelines
Vehicular Ramp Applications
General Mixing Instructions
Recommended Solvents for Cleaning
Safety Precautions

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TEMPERATURE LIMITATIONS

Low Temperature Applications

When installing polyurethane deck coatings in cold weather, special precautions must be taken. These coatings should not be applied to surfaces which are 40ºF or colder and extra care must be taken to insure that there is no condensation on the deck. Priming is always required at low temperatures. When outside temperatures are 60ºF or less, the deck coating materials should be warmed by storing overnight in a conditioned space. Pecora 850 Accelerator is available to increase cure rate. The addition of 4 ounces per 5 gallon pail will help curing at lower temperatures.

The addition of Pecora 850 Accelerator will cut the cure time in half; however, it will not reduce the viscosity of the cold coating or make the squeegee application any easier. The only way to speed the rate of application is to apply warm material.

When applying intermediate coats and top coats, care must be taken to insure that the base coat is cured to a firm but tacky rubber. Applying top coats over an uncured or partially cured base coat will lead to blistering or delamination.

High Temperature Applications

When installing polyurethane deck coatings in hot weather, special precautions must be taken. Factors to consider are ambient and substrate temperatures as well as sunlight exposure. Elevated ambient temperatures and direct sunlight exposure will result in increased substrate surface temperatures. Generally, polyurethane coatings should not be applied to substrates when the ambient and substrate temperatures exceed 100°F. When polyurethane coatings are applied at ambient and substrate temperatures greater than 100°F, bubbles may form at the substrate / coating interface which can affect coating adhesion, appearance and ultimate field performance (See "Common Causes and Cures for Blisters" section for more details). Another factor to consider is the decrease in viscosity of the deck coating components which can affect coverage rates when material and substrate temperatures are elevated. In order to prevent this occurrence, adjust the work schedule to permit coating application in shaded areas first or perform work early or late in the day when the ambient / substrate temperatures are within the acceptable range.

Measurement of ambient and surface temperatures can be a useful exercise especially when solar radiant heat is a factor on dark construction surfaces. A convenient method of measuring surface temperature is the use of an infrared surface temperature probe.

Installation Guidelines for High Temperature Applications:

- Due to the possibility of off-gassing, a reduction in wet mil coating thickness and use of spiked rollers may be necessary when installing deck coatings in areas subject to direct sunlight exposure, elevated ambient/substrate temperatures, and/or high humidity.
- Up to an approximate **30% reduction in coating thickness** is approved in order to prevent potential off-gassing and associated bubbling and pinholes.
- For elevated temperature/humidity applications only, Pecora will approve the installation of the **802 Base Coat** at twenty (20) wet mils. Reducing the coating thickness of the 804 intermediate and 806 top coats should not be required.
- In addition to the coating thickness reduction, the use of **spiked rollers** may be necessary to alleviate any bubbling that may occur while the coating is still fluid.

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AGGREGATE

Recommended sand is composed of hard siliceous, durable grains, free from dirt, clay, water soluble and micaceous particles. Ideally sand should contain a minimum silica dioxide (SiO_2) content of 80%, a maximum loss of ignition of 1%, a maximum chloride content of 0.03% and maximum moisture content of 0.5%, by weight, when shipped. Ideally sand should have a minimum hardness of 6.5 on the Moh's scale.

Recommended sand are angular, kiln dried, screened, aggregate blends. They are typically supplied in 30, 20, 16 and 12 mesh sizes.

The following are typical representative gradations. The values are the percentage passing through the screen size.

Aggregate Sizing

LARGER

SMALLER

U. S. SCREEN NUMBER	#12 MESH	#16 MESH	#20 MESH	#30 MESH
70	---	---	---	---
50	---	---	---	0 – 3%
40	---	---	0 – 1%	1 – 10%
30	0 – 2%	0 – 5%	2 – 15%	10 – 30%
20	1 – 6%	5 – 25%	30 – 60%	70 – 90%
16	15 – 40%	40 – 80%	92 – 100%	100%
14	---	75 – 95%	---	---
12	65 – 85%	98 – 100%	100%	---
8	100%	100%	---	---

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COMPLIANCE WITH ADA SLIP-RESISTANCE GUIDELINES

There is currently no established specification and test method for skid resistance under the American with Disabilities Act (ADA), but the current ADA general recommendation is that static coefficient of friction be above 0.6 for flat surfaces and 0.8 for ramps. Pecora Deck Coating Systems will meet this requirement when installed according to our literature.

The American with Disabilities Act Architectural Guidelines, Appendix Section A.4.5, Ground and Floor Surfaces, reads:

"The Occupational Safety and Health Administration recommends that walking surfaces have a static coefficient of friction of 0.5. A research project sponsored by the Architectural and Transportation Barriers Compliance Board (Access Board) conducted tests with persons with disabilities and concluded that a higher coefficient of friction was needed by such persons. A static coefficient of friction of 0.6 is recommended for accessible routes and 0.8 for ramps."

Test Results

Static Coefficient of Friction was determined using ASTM D4518 with a neoprene surface in contact with the sample under test. The results reported are the average of 3 measurements each. Measurements were taken at 25°C under both wet and dry conditions.

Pecora Deck System	Static Coefficient of Friction	
	Dry	Wet
Pedestrian	0.85	0.84
Pedestrian (HD)	1.28	1.05
Pedestrian w/out Sand	1.59	0.70
Vehicular	1.18	1.17
Vehicular (HD)	1.59	0.70

Comments

Under the conditions of this series of tests, all standard Pecora Deck Coating Systems comply with the ADA guidelines for slip resistance. Actual installed slip resistance is affected by a number of installation-related factors, including aggregate size, type, amount, and installation technique. Agreement should be reached between the specifier and applicator regarding the desired finished surface profile appearance.

For this test, the Pecora Deck Systems were tested without aggregate, since this is sometimes done in stadiums and mechanical rooms to make cleaning easier. In this configuration, slip resistance decreases dramatically when wet and does not meet the guidelines for ramps. Consideration should be given to the use of aggregate on ramps and other sloped walkway surfaces to ensure that universal safe access is maintained.

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VEHICULAR RAMP APPLICATIONS

The Pecora Deck 800 Series vehicular deck coating is approved for use on vehicular ramps with slopes ≤15%.

Ramp areas with slopes > 15% may be problematic when wet with regard to vehicular slip resistance. As a result, Pecora recommends installing the standard vehicular deck coating system plus an additional 806 top coat with aggregate to refusal as this will increase the coefficient of friction to some degree. Use a 12-20 mesh aggregate to ensure a course surface. Remove all excess aggregate after a 24 hr. cure period. Do not apply additional 806 top coat over the exposed aggregate surface. Aggregate surface must be left exposed to vehicular traffic in order to ensure the added slip resistance.

Periodic maintenance of the top coat with exposed aggregate may be required in order to maintain the original coefficient of friction. Also, the use of "Slippery When Wet" signage in these ramp areas is recommended as these areas are difficult to ensure 100% slip resistance with vehicular traffic when wet.

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GENERAL MIXING INSTRUCTIONS FOR ALL TWO-PART PRIMERS AND POLYURETHANE COATINGS

1. Check mix ratio on labels and in the Application Manual prior to mixing materials. Proper ratios are essential for optimum coating performance and development of physical properties. Pay particular attention to pot life instructions.

2. The catalyst or Part B side of the mix is **always** to be added to the Base or Part A Side.

3. Always mix the base or Part A side thoroughly (3-5 minutes) prior to addition of the catalyst.

4. Once the two parts are combined, mix for a minimum of five (5) minutes with a low-medium speed drill and a Jiffy Mixer. It is essential that all two-component materials be mixed thoroughly so no off-ratio materials are produced.

   NOTE: Mixing at too high rate of speed or with the wrong mixing blade can introduce air bubbles into the coating. These bubbles may develop into blisters during application.

5. Be careful not to whip in excessive quantities of air into the coating. It is recommended that mixing paddle speeds be kept low, preferably at 300 R.P.M. or less and that the mixing head be kept immersed as much as possible.

6. Any thinning of two-part materials should come **after** the Part A and Part B materials are mixed together. If solvents are added prior to mixing, proper coating ratios cannot be achieved.

7. When pumping two-part polyurethanes through plural-component and static -tube mixing equipment, be sure to mix each side thoroughly prior to pumping. Thinning in such applications must be done equally to both sides prior to metering and spraying.

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SAFETY PRECAUTIONS

A. Environmental Conditions

1. Do not proceed with application of the primers or polyurethane coating materials when the deck temperature is less than 40°F.

2. Do not apply materials unless the surfaces to receive the coating are clean and dry, or if precipitation is imminent.

B. Protection

1. Warm personnel against breathing vapors and contact of materials with skin or eyes. Provide adequate ventilation.

    a. At all times, workmen should be have available chemical-cartridge type masks or other approved protection devices.

    b. Wear protective clothing.

    c. Keep all personnel out of areas being coated until 48 hours after job is completed. Longer if there is not adequate ventilation.

2. Seal air inlets, doorways and windows into nearby occupied spaces to prevent vapors from entering these areas.

3. Keep products away from heat, sparks and flame. Do not allow use of spark-producing equipment during application and until vapors are gone. Post "No Smoking" signs.

4. After completion of application, do not allow traffic on coated surfaces for a period of at least 48 hours at 75°F and 50% R. H., or until completely cured.

5. Protect plants, vegetation and animals that might be adversely affected by the coating operation. Use drop cloth or masking as required.

6. Read warnings and instructions on container labels and on the **SDS (safety data sheet)**.

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SECTION #5

TROUBLE SHOOTING

Word of Wisdom
The Roll of Adhesion in Deck Coatings
Concrete Slabs with Vapor Drive Concerns
(Unvented Metal Pans, Between Slab Membranes, On-Grade Slabs)
Common Causes & Cures of Blisters
Chemical Resistance

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WORDS OF WISDOM

1. Pecora Polyurethane Coatings are vapor barriers systems and should not be applied over exterior concrete decks that have been constructed over unvented metal pans or onto exterior concrete decks that have a between-slab membrane system under them.

2. Deck temperature should always by 40°F or above whenever epoxy primers or Pecora Polyurethane Coatings are being applied.

3. All material quantities given in the Pecora Application Manual and Pecora Specification sheets assume perfectly flat and smooth surfaces. As the profile of concrete tends to vary, material quantity estimates should be increased accordingly. In addition, material left in lines or containers and loss due to overspray should be taken into consideration when estimating.

4. Mix all materials thoroughly prior to use. Read labels directions carefully, especially on two-component products.

5. Acid Etching or Shot-Blasting is required on all concrete surfaces prior to application of the Pecora Polyurethane Waterproofing Systems. Consult Pecora Representative for job to job recommendations or for alternate methods of surface preparation.

6. Any thinning of material reduces coverage and the subsequent dry film thickness. If thinning is required, increase material volume accordingly.

7. Never coat wet or moist surfaces. When in doubt, consult a moisture meter or perform a plastic mat test.

8. Solvent based products are incompatible with asphaltic compounds.

9. Do not mix combinations of different coating material (different part numbers) without consulting an authorized representative.

10. It is much easier to use caution or to use masking to keep off an adjacent surface during application than to remove it after cure.

11. When using spray equipment flush equipment lines thoroughly every night to prevent material from clogging the hoses.

12. Pecora 802 Base Coat is not designed for extended ultra-violet exposure.

13. In systems requiring the use of primers, the polyurethane coatings materials must be applied the same day as the primer is applied, otherwise lightly re-prime.

14. Never apply the primer or polyurethane elastomeric coatings when precipitation is imminent.

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THE ROLL OF ADHESION IN DECK COATINGS

Most deck coating failures are the result of inadequate preparation of the concrete substrate. The following is a check list for avoiding adhesion problems caused by inadequate surface preparation.

1. Insure that there is an adequate surface profile or anchor pattern.

   a. Concrete is a porous, heterogeneous composite. Its pores or capillaries aid in the adhesion of the deck coating. Adhesion is improved via the use of high penetration primers, preferably of the lowest possible viscosity. The greater the depth of penetration, the better the adhesion will be. But concrete porosity alone does not produce an adequate surface profile.

   b. Mechanical adhesion is also achieved in the concrete substrate by roughening or profiling the concrete. The minor peaks and valleys formed by roughing the concrete provide an anchor pattern to which the base coat topping can bond. This profile can be created by mechanical methods such as shot blasting or by proper finishing of the new concrete.

2. Be certain the concrete is sufficiently clean. The degree of cleanliness of the concrete substrate is critical for long-term adhesion. Surface preparation must product a substrate that is free of all deleterious substances.

   Substrate cleanliness means also that there are "non-visible" contaminants on the concrete. Job site tests may need to be performed to insure soluble salts and other contaminants are not present.

   Water soluble contaminants can be effectively removed by using high pressure water jetting or other mechanical means.

   Curing agents or sealers can cause deck coating failures if they are chemically incompatible with the coating system. Solving this problem generally involves concrete removal via mechanical means.

3. Insure that the concrete substrate is dry. Among the several tests for the presence of moisture in concrete, the most effective is the rubber mat or plastic sheet taped to the deck.

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CONCRETE SLABS WITH POSSIBLE VAPOR DRIVE

The low moisture vapor permeability of Pecora Polyurethane Deck Coatings restricts the amount of moisture that can be released through the coating. On-grade slabs may have a significant vapor drive through the coating due to the combination of uncontrolled amounts of ground moisture and temperature differentials. This can result in blistering and adhesion loss. These slabs should not be coated with polyurethane deck coating systems. Other slab types may be exhibit the same phenomenon due to water trapped in the slab system prior to deck coating installation or by entering the system by another path afterwards. These construction types include split slabs with a buried waterproofing membrane and slabs over unvented metal pans.

Standard Pecora-Deck™ 800 Series Coating System installation procedures, as described in Pecora's Technical Data Sheets, must not be used on slabs of these types. The coatings may be installed on these types of slabs only when specific surface preparation measures are taken. The following points and procedures will apply to concrete slabs with possible vapor drive:

1. Concrete slab must be thoroughly dry prior to coating installation. Confirm that the slab is adequately dry with a rubber mat test or concrete moisture meter. Refer to Pecora Technical Bulletin #71 for concrete moisture testing guidelines.
    a. Concrete over unvented slabs or split slabs with buried membrane must have a moisture content below 5% at time of primer application. Split slabs with buried membrane must have drainage at the membrane level.
    b. On-grade slabs must have a moisture content below 12% at time of primer application.
2. The concrete surface must be prepared by shot blasting or equivalent procedure to an ICRI surface finish of CSP 3 to 5.
3. Mix equal volumes of P-808 Part A and Part B. Thin the resulting mixture 50% with xylene (1 gallon mixed P-808: 0.5 gallon Xylene). Allow mixture to stand at least 15 minutes but no longer than 60 minutes.

    a. The Pecora Healer Sealer Penetrating Epoxy Sealer (220 g/L VOC) may be substituted for the P-808 primer at project locations where local VOC regulations prevent the usage of the P-808 primer (450g/L VOC)[1]. An undiluted single coat of the Healer Sealer will be required.

4. Apply thinned P-808 by roller, spray or brush at 250 square feet per gallon. Allow primer to dry 1 to 2 hours minimum at 70°F, longer at colder temperatures.
5. Apply second coat of undiluted P-808 at 250 square feet per gallon. Allow primer to dry 2 hours minimum, 8 hours maximum.
6. Install Pecora-Deck™ 800 Series Deck Coating System, beginning with 802 Base Coat, per instruction on the Technical Data Sheet.

[1] Check local VOC regulations for product compliance prior to installing deck coating primer.

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Determining Concrete Moisture Content Through Field Testing

The allowable moisture content of concrete prior to the application of sealant or coating materials is 5% or less via the internal humidity test (ASTM F2170) or 5lbs/1000ft²/24hrs via the calcium chloride test (ASTM F1869) when applying to slabs with possible vapor drive such as on-grade slabs and unvented elevated slabs. Three common methods (one qualitative and two quantitative) for determining moisture content are described below. Pecora requires at least one quantitative test method to be performed and documented prior to coating installation.

Be aware that concrete moisture mitigation will be required if the below-mentioned requirements are not met. Consult Pecora Technical Service with any questions or concerns regarding the published requirements and possible resolutions.

ASTM D4263 Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method (Qualitative / Rubber Mat Test)

The rubber mat test is intended to measure concrete surface boundary moisture only and is not intended to determine internal concrete moisture content. This is considered a qualitative test method and is typically conducted the day of coating installation.

- Purpose: Capillary moisture in concrete is detrimental to the adhesion and performance of polyurethane deck coatings which cannot tolerate moisture on or within the surface boundary.
- Materials: 4 mil (minimum) polyethylene sheet or rubber mat 2" duct tape.
- Conditions: Test when surface and ambient temperatures are within the recommended application temperature for the coating system.
- Procedure: Tape polyethylene sheet or rubber mat approximately 12"x 12" to the deck surface making certain all edges are sealed. Allow the polyethylene sheet or rubber mat to remain in place for 16 hours (minimum). After 16 hours, remove the polyethylene sheet or rubber mat and observe the underside of the mat and the concrete surface. Slight amounts of moisture are normal and are to be expected. ***Beads of water indicate the concrete is too wet for moisture sensitive coatings to be applied and quantitative testing for internal moisture content should be completed using one of the methods noted below.***

ASTM F2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes

- Quantitative test method to determine relative humidity as measured inside a drilled hole.
- ***Requirement: Maximum 75-80% internal RH considered acceptable for floor coatings***
- Comparable to ~ 5% moisture level

Wagner RH Meter (models may vary)

If the concrete is at 5.0% moisture content, it will neither absorb nor desorb moisture if the air above it is 70º F (21º C) and 75% RH. Therefore, if the air inside the box measures less than 75%, it can be assumed that the moisture content of the concrete is less than 5%.

Sensor availability:
Wagner Electronic Products, Inc. · https://www.wagnermeters.com/

ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfl Using Anhydrous Calcium Chloride

- Quantitative test method where moisture vapor emission rate is measured and determined over 24hrs via calcium chloride
- Unit of measure: Pounds per 1000ft² over a 24hr period (lbs/1000ft²/24hr)
- ***Requirement: Maximum 5lbs/1000ft²/24hrs allowed prior to floor coating application***

Test Method Summary & Procedure:
On-site temperature and humidity must be controlled at least 48 hours prior to testing at a setting between 65-85°F and 40-60% relative humidity (RH). The slab must be clean and free of any contaminants. The test method noted below may slightly vary. Refer to the test kit instructions for specific guidelines.

1. Prepare three test sites for the first 1,000 sq. ft. Add one test site for each additional 1,000 sq. ft.
2. Set the tape sealed plastic dish on the scale and record its weight in grams, date and time of the test.
3. Carefully remove the tape along the edge of the dish, invert the lid under the dish and then stick the tape along the side of the dish to keep it safe. Be very careful not to spill any of the calcium chloride.
4. Place the dish on the slab away from cracks and joints. Be sure the calcium chloride inside is level. Remove the white paper on the dome and place the dome over the dish.
5. Firmly press the gasket under the flanges of the dome to seat the outer flanges of the dome to the slab and the gasket inside the edge of the dome. Place your hand over the dome and apply pressure, making sure there are no leaks in the gasket.
6. Place a safety cone over the dome and allow the test kit to remain undisturbed for 60-72 hr.
7. Cut open the dome and carefully remove the dish. Replace the lid and re-seal it with the blue tape.
8. Weigh the dish on the same scale, recording the ending weight in grams, the date and time on the dish lid.
9. Calculate the Moisture Vapor Emission Rate in pounds per 1000ft² over a 24hr period per the instructions included with the test kit.

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COMMON CAUSES AND CURES FOR BLISTER

Because the Pecora Polyurethane Coating Systems are positive seal or vapor barrier systems, blistering may occur during application if certain conditions are present.

1. **Moisture Blister**

Normally, blister caused by moisture are fairly large (quarter to silver dollar in size). They will have a trace of moisture under them when they are cut open. They can be caused by coating a damp or wet deck. The most important aspect to all systems is the bond to the substrate. All precautions should be taken to assure that the deck to receive the Pecora Polyurethane Deck Coating System is thoroughly dry. Moisture blisters will also occur between layers of coating if the deck is damp between coats (due to rain, dew, fog, etc.) There may or may not be a trace of moisture under these blisters. The moisture between coats leaves a definite watermark on the back of the blister itself.

To minimize the moisture blister problem after it occurs, you must cut out these blisters and leave the void open in order to allow the moisture to escape. After the moisture has escaped and the surface has dried, make necessary repairs.

2. **Pinhole Blister**

Pinholing occurs normally when a concrete deck has been sandblasted, shot-blasted, ground, or if the new concrete has not been properly finished with a steel trowel. The surface of the concrete has been broken, opening up air pockets in the concrete which are actually tiny holes in the concrete about 1/8" to 1/4" deep. As you coat the deck, the coating will bridge these holes, and as the film dries, small blister will form as the air inside the pinhole expands. If you cut these blisters open, there will be a tiny hole in the deck. While the coating is still in the liquid stage, these blisters must be broken with a squeegee or stiff broom before another coat is applied.

Several measures have proven effective to the occurrence of these small pinhole blisters:

a. Increase slightly the amount of primer being used or apply two light applications of primer.

b. Apply the specified system in thinner coats. Obviously this procedure means more coats are involved in applying the full system.

c. Begin application of first base coat late in the day, after the heat of the day has passed and after the deck has begun to cool. This will allow the base coat flow into the pinholes and plug the pinholes upon curing.

3. **Application Blisters**

a. Gassing can occur when the coating system is applied at an application rate or thickness which is greater than that in the recommended application instructions. It may occur anywhere in the coating film. When it occurs at the top surface of the cured film, gassing resembles a small pinhole. To reduce the occurrence of this problem, apply the material in thinner coats.

b. Solvent blisters occur when a coat of material is applied before the preceding coat has cured. Solvents in the uncured coat will not have had sufficient time to leave the film and are trapped by the next coat. Solvent blisters are most common during marginal weather conditions such as low temperatures, low humidity, or both. These blisters are usually fairly large (quarter-sized up to several inches) and will be tacky on the back side of the film. To repair, cut out the blisters and allow the entire film to dry before touching up and recoating.

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CHEMICAL RESISTANCE OF PECORA SOLVENT-BASED POLYURETHANE DECK COATING SYSTEMS

Pecora Deck Coating Systems are resistant to many commonly encountered chemicals. These coatings are widely used for parking decks, mechanical rooms and other location where they are exposed to incidental chemical contact. They are not recommended for fluid containment, fountains, or ponding water applications, nor are they recommended for chemical processing areas where there may be long term exposure to aromatic oxygenated or chlorinated solvents and/or concentrated acids or bases.

Any coating system can stain if not properly maintained. Pecora recommends washing on a regular schedule to remove dirt, oils and other debris that may damage the coating. Spills of unknown chemicals should be cleaned up immediately.

COMPATIBILITY WITH COMMONLY ENCOUNTERED CHEMICALS

Chemicals	Compatibility	Chemical	Compatibility
#2 Fuel Oil	N	Lacquer Thinner	A
Battery Acid	S	Methanol	N
Blood	N	Mineral Spirits	N
Brake Fluid	S	Motor Oil	N
Deicing Salts	N	Nitric Acid, 10%	S
Diesel Fuel	N	Skydrol	A
Ethanol	N	Sodium Hypochlorite 5%	S
Ethylene Glycol	N	Sodium Hydroxide <40%	N
Gasoline	N	Sodium Chloride	N
Hydrochloric Acid, <20%	N	Sulfuric Acid, >28%	S
Hydrochloric Acid, >20%	S	Sulfuric Acid, <28%	N
Isopropyl Alcohol	N	Toluene	A
		Xylene	A

A - Avoid, clean up immediately if contact occurs
N - No effect, clean coating regularly
S - Staining, softening possible; clean coating frequently to avoid long term exposure

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SECTION #6

MAINTENANCE OF DECK COATING

Deck Coatings Maintenance Manual
Re-Coat Over Existing Coatings

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PECORA DECK COATINGS MAINTENANCE MANUAL

1. General

   A. Maintenance of Pecora Deck Coating Systems must be performed at regular intervals to assure that the coating system will continue to provide service for which it was intended.

   B. Maintenance procedures should include:

      a. Periodic physical inspections

      b. Cleaning

      c. Snow removal and ice control (where applicable)

      d. Repairs to structure

      e. Repairs to coating system

      f. Periodic replacement of Topcoat and paint striping

2. Inspections

   A. The deck coating system is subject to extreme abrasive wear conditions as well as to physical damage from general use and damage resulting from structural problems. Periodic inspections will provide a basis for the proper maintenance work to assure a long life expectancy of the coating system.

   B. Monthly - make a physical inspection to determine if there are any areas of excessive wear or physical damage to the coating.

   C. Semi-Annually - make a thorough physical inspection. Such inspections should include, but are not limited to:

      a. Inspect the sealant in the joints for proper adhesion. Also determine if there is any cohesive failure or physical damage to the sealant

      b. Where possible, inspect the underside of the joints for evidence of leaks.

      c. Inspect the areas where beams are resting on columns for evidence of stress cracking or excessive movement.

      d. Where possible, inspect the entire structure from the underside of the deck for cracks which show evidence of a difference in the plane of the materials on each side of the crack.

      e. Inspect drains or scuppers to ensure there is nothing clogging or blocking them, to avoid ponding water on the deck.

f. Inspect areas at junctures of horizontal decks and vertical sections (ie: parapet walls, planter walls, building walls, curbs, etc.) to determine if there has been excessive movement at these points which may have caused the coating to crack.

g. Inspect coating at the base of parking bumpers (in the case of parking deck coating systems) to determine if there has been any damage to coating as a result of movement of the bumper.

h. Inspect coating surface to determine if there are any substantial structural cracks in the substrate which have caused the coating to crack.

i. Inspect areas which are subject to high abrasion and wear such as:

(1) Vehicular Traffic Decks: Turn radii, entrance and exit ramps and other start/stop areas for excessive wear loss of aggregate in the coating.

(2) Pedestrian Decks: Top of stair landings, stair treads, doorways, narrow walk-through areas, etc.

(3) Other Decks: Inspect entire surface for high wear areas.

3. Cleaning

A. The use and location of the deck will cause the cleaning frequency to vary. Our recommendation for cleaning under average use conditions is as follows:

a. Weekly - Sweep or vacuum deck to remove loose debris and dirt.

b. Monthly - thoroughly clean the deck to remove dirt, debris, oil or grease dripping, black tire marks, etc. Cleaning may be by:

(1) Power scrubbing with low suds, biodegradable detergent. This requires thorough rinsing to avoid detergent residues which may cause the deck to be slippery when wet and may cause stains.

(2) High pressure water blast. Water pressure should not be greater than 1,000 psi at nozzle.

c. Avoid the use of strong solvents, especially hydrocarbon type solvents.

4. Snow Removal and Ice Control

A. It should be recognized that piled snow can significantly load the deck surface beyond its design load capacity resulting in significant structural cracks and/or more serious structural damage. Therefore, immediate removal of piled snow is recommended.

B. The use of metal blades, tire chains and metal studded tires should be avoided at all times to prevent physical damage to the coating system.

C. Snow Blowers *with rubber blades* and Snow Brooms are recommended, as opposed to heavy snow removal equipment.

5. Repair to Structure

A. All structural repairs should be at the direction of a Structural Engineer.

6. Repair to Deck Coating Materials

A. Minor repairs may be made by owner's maintenance people, however, it is suggested that to protect the manufacture's warranty, major repairs should be accomplished by the original approved applicator.

B. Physical damage to the coating system (cuts, tears, burns, etc.):

a. Remove damage coating materials back to well adhered material.

b. Thoroughly clean the exposed substrate and existing coating surrounding the area with a clean cloth that has been wet with xylene solvent.

c. Allow solvent to evaporate (1 hour at 75°F, 50% R. H.).

d. Install the coating system to the original film thickness, extending each coat onto the existing coating, featheredging the terminating edge of the coating. If multiple coats are required (ie: coating removed to the original substrate), allow 24 hours cure time between coats.

e. Allow the repaired area to cure for 24 hours (minimum) for pedestrian decks, 48 hours (minimum) for vehicular decks before allowing traffic on the repaired area.

C. Excessive Wear Areas and Traffic Replacement

a. Thoroughly clean area with steam cleaner, power scrubber or high pressure water blast.

b. Allow area to become completely dry.

c. Scrub area with xylene solvent.

d. Allow solvent to evaporate (1 hour at 75°F, 50% R.H.).

e. Apply P-801-VOC Interlaminary Primer at a rate 300-400 square feet per gallon in a thin, even film. Avoid puddles or ponding.

f. Allow P-801-VOC primer to cure for 1 hour minimum, 8 hours maximum.

g. Apply continuous membrane coat:

(1) For Pedestrian Decks apply a coat of Pecora 802 Base Coat to the cleaned area at a rate of 50 square feet per gallon. Featheredge terminating edges. Allow to cure overnight at a temperature above 70°F. Lower temperatures will extend the cure time.

(2) For Vehicular Decks apply a coat of Pecora 804 Intermediate Membrane Coat to the cleaned area at a rate of 110 square feet per gallon. Featheredge terminating edges. Allow to cure overnight at a temperature above 70°F.

h. Open pail of Pecora 806 Topcoat and stir contents to ensure that there is no settlement on the bottom of the pail and that all the pigment is dispersed into the liquid.

NOTE: To ensure color uniformity, all containers should have the same batch number. In the event it is necessary to use pails with different batch numbers, the material should be mixed together.

i. Apply Pecora 806 Topcoat at a rate of 100 square feet per gallon. Immediately broadcast aggregate into the wet coating and backroll with a wet roller to evenly distribute the aggregate. Vehicular decks require two coats in high wear areas. Allow 24 hours between coats.

j. Suggested schedule for aggregate. Amounts may require adjustment to match existing coating texture.

Vehicular Decks – 12/20 mesh silica at 50 lbs/100 sq. ft.
Pedestrian Decks – 16/30 mesh silica at 10-15 lbs/100 sq. ft.
Pool Decks – 80/100 mesh silica fully covered
Tennis Decks – 80/100 mesh silica fully covered 2 coats

k. Allow Pecora 806 Topcoat to cure for 48-72 hours before opening to traffic.

7. Replace Topcoat

A. To maintain the aesthetics and wearing properties of the Pecora Deck Coating System, it is recommended that the Pecora 806 Topcoat be inspected yearly and replaced every five years. (Actual time required for re-coating will depend upon the use of the deck.) Replace topcoat using the procedure in Section 6.C.

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INSTALLING PECORA DECK COATINGS OVER EXISTING POLYURETHANE COATINGS

General

a. When coating over existing coatings, Pecora can not assume responsibility for the adhesion of the existing coating, regardless of any reason for a failure of the existing coating. Pecora recommends that the applicator install a test section before undertaking the entire installation. During such test, applicator will determine adequacy of adhesion and observe if there is any incompatibility. Installations over existing coatings must be approved in advance by Pecora.

b. For very low temperature applications or where a short installation time is required, consult with the Pecora Representative.

c. Use pails of Pecora 806 Topcoat with the same batch number. In the event it is necessary to use multiple batches in the same area, it is recommended that batches be mixed together to ensure color uniformly.

d. Cure times stated are based upon standard conditions of 75 degrees F, 50 % R.H. Low temperatures will increase cure time significantly, higher temperatures will decrease cure time slightly.

Surface Preparation

a. Carefully inspect the existing coatings, looking for cracks which may have occurred in the substrate, causing the existing coating to crack. Look for any loose or non-adhered existing coating. If possible, observe the underside of the deck, looking for evidence of leaks or structural damage. Observe if there are other conditions which may harmfully affect the adhesion or other properties of the new coating system.

Do not begin work if conditions are not satisfactory unless there is a waiver in writing from the Architect/Engineer/Owner.

b. Saw cut all cracks to ¼" wide x ¼" deep.

c. Inspect the sealant in expansion joints and the sealant cants. Remove any damaged or failed sealant and thoroughly clean the area from which the sealant has been removed. Cleaning shall be by any means deemed necessary to ensure there is no old sealant residue and the area to receive new sealant is free of any harmful contamination which may affect the adhesion of the new sealant.

d. Remove all loose coating material and cut back to sound, well adhered coating. Feather edges where old coating is removed.

e. Thoroughly clean the entire deck. High pressure water blast is generally satisfactory, providing the nozzle is kept near the surface, utilizing the pressure. If the surface is saturated with oil, grease or other similar contaminants, other means of cleaning may be required to completely remove the contamination. Clean concrete by mechanically grinding or sanding, followed by thorough cleaning to remove dust and debris.

Regardless of what method is used for cleaning, it must be understood that cleaning is of the utmost importance. Adhesion of the new coating is totally dependent upon a clean surface. The

primer will not penetrate dirt or other contamination and provide good adhesion. The surface must be clean for the primer to adhere.

f. Allow the surfaces to become thoroughly dry. When working with polyurethane coatings, it is necessary that the surfaces be completely dry. Even slight moisture will adversely affect the coating and may result in bubbles, blisters and/or loss of adhesion

g. Use oil-free compressed air to clean out saw cut cracks. Consult with Pecora Representative with regards to the use of primer. If required, prime with P-75 primer. Allow to dry 1 hour. Primer is sufficiently dry when the solvent has evaporated and it will not transfer when touched.

h. Mix Pecora Dynatred Sealant per instruction and load sealant into a bulk sealant gun. Fill saw cut cracks with sealant. Tool the sealant to be flush with the surface of the deck; press firmly to ensure a good bond between the sealant and the concrete surfaces. Use care not to remove sealant from the joint, creating a concave surface. It will show in the finished deck.

i. Where existing sealant has been removed, clean edges of remaining sealant with clean cloth wet with xylene solvent. Replace sealant previously removed from sealant cants with a 3/4" to 1" bead of sealant at the juncture of all vertical and horizontal surfaces, including projections through the deck and parking bumpers. Tool the sealant bead to form a 45 degree cant.

j. Allow the sealant to cure over night.

k. Clean surfaces of existing coating 8" on each side of sealed cracks, cants and other areas to receive detail coat. Use a clean cloth that has been wet with xylene solvent. Do not puddle or pond the solvent. Change cloths frequently to avoid redepositing any contamination. Allow 1 hour (minimum) for solvent to evaporate.

l. Apply P-801-VOC Interlaminary primer with a low pressure sprayer or roller in a thin coat at a rate of 300-400 square feet per gallon, to existing coating 6" on each side of the sealed cracks, cants and other areas to receive detail coat. Allow primer to cure for 1 hour minimum, 8 hours maximum. Primer is sufficiently cured when it will not transfer when touched. In the event the coating is not applied within the maximum dry time, re-prime.

m. Apply a 6" wide stripe coat of Pecora 802 detail coat, 30 mils thick, centered over the primed, treated cracks, cants and other areas to receive detail coat. Featheredges the terminating edges of the stripe coats to prevent these edges from showing through the finished coating.

Allow the Pecora 802 detail coat stripes to cure overnight (16 hours minimum).

Recoat System Application

Vehicular Traffic Decks

In areas where there is exposed concrete:

a. Cut back existing coating around the exposed concrete to firmly adhered coating. Clean concrete by mechanically grinding or sanding, followed by thorough cleaning to remove dust and debris. Use a clean cloth wet with xylene solvent to wipe an area 6" wide around the perimeter of the existing coating. Do not puddle the solvent.

b. Apply a thin film of Pecora P-801-VOC (<100g/L) or P-808 (<450g/L)[1] primer at 250-350 square feet per gallon to the clean concrete. Allow primer to dry for 1 hour minimum, 8

hours maximum. Primer is sufficiently cured when it will not transfer when touched. Do not puddle the primer.

c. Apply Pecora 802 Base Coat at a rate of 50 square feet/gallon or as needed in order to obtain a minimum thickness of 32 wet mils primed areas. Terminate the Pecora 802 Base Coat onto the existing coating by featheredging the terminating edges. Allow the Pecora 802 Base Coat to cure overnight (16 hours minimum).

In areas of existing, sound coating:

a. Clean all surfaces of existing coating. Clean small areas with a clean cloth that has been wet with xylene solvent. For large areas use a clean mop. Use a pail with a wringer and do not puddle or pond the solvent. Change cloths or mop heads frequently to avoid redepositing any contamination. Allow 1 hour (minimum) for solvent to evaporate.

b. Apply P-801-VOC Interlaminary Primer to the areas of existing coating to be recoated. Apply the P-801-VOC Interlaminary Primer at a rate of 300-400 square feet per gallon. The primer may be applied with a flat squeegee, roller or sprayer. Ensure proper coverage rates are achieved.

CAUTION: P-801-VOC Interlaminary Primer is a unique product that is designed to "bite" into the existing coating, then co-cure with the coating. Because of its ability to soften and penetrate into the existing coating, extreme care must be observed in applying this primer. **AVOID PUDDLES OR PONDING.** Puddles of the primer may result in a lifting of the existing coating or may result in out-gassing which will show as bubbles in the new coating.

c. Allow P-801-VOC Primer to cure for 1 hour minimum, 8 hours maximum. Primer is sufficiently cured when it will not transfer when touched. In the event area cannot be coated within the maximum time period, the area must be re-primed.

d. Method #1 (Standard): Apply Pecora 804 Intermediate Coat in one uniform coat at the rate of 110 square feet per gallon or as needed in order to obtain a minimum thickness of 16 wet mils. Immediately broadcast 12-20 mesh aggregate into each coat at rate of 10 to 15 lbs. per 100 square feet and backroll. Allow an overnight cure between coats.

Method #2 (Refusal): Apply Pecora 804 Intermediate Coat at the rate of 110 square feet per gallon or as needed in order to obtain a minimum thickness of 16 wet mils. Immediately broadcast 20-25 mesh aggregate at a rate of 40-45 lbs. per 100 square feet. Allow an overnight cure between coats. Sweep off excess sand once fully cured.

e. Apply Pecora 806 Topcoat in a uniform coat at a rate of 100 square feet per gallon or as needed in order to obtain a minimum thickness of 16 wet mils on each coat. A reduced coverage rate can be expected over an aggregate to refusal system (Method #2).

f. Allow the coating to cure 48-72 hours before opening the deck to traffic. (Striping may be installed after 24 hours.)

Extended Recoat Warranty Application Requirements: An extended vehicular recoat material warranty is available and will require the application of the Pecora 802 prior to Step d. Apply the 802 base coat at a rate of 50 square feet per gallon to obtain 32 wet mils over all existing coating prior to the application of the 804 intermediate coat and aggregate. Allow the 802 base coat to cure overnight.

Pedestrian Traffic Decks (Mechanical Rooms, Sun Decks, Balconies, etc.)

In areas where there is exposed concrete:

a. Clean concrete; cut back existing coating around the exposed concrete to firmly adhered coating. Use a clean cloth wet with xylene solvent to wipe an area 6" wide around the perimeter of the existing coating. Do not puddle the solvent.=

b. Apply a thin film of Pecora P-801-VOC (<100g/L) or P-808 (<450g/L)[1] at 250-350 square feet per gallon to the clean concrete. Allow the primer to dry for 1 hour minimum, 8 hours maximum. Primer is sufficiently cured when it will not transfer when touched. Do not puddle the primer.

c. Apply Pecora 802 Base Coat at a rate of 50 square feet/gallon, or as needed in order to obtain a minimum thickness of 32 wet mils, to primed areas. Terminate the Pecora 802 Base Coat onto the existing coating by featheredging the terminating edges. Allow the Pecora 802 Base Coat to cure over night (16 hours minimum).

In areas of existing, sound coating:

a. Clean all surfaces of existing coating. Clean small areas with a clean cloth has been wet with xylene solvent. For large areas use a clean mop. Use a pail with a wringer and do not puddle or pond the solvent. Change cloths or mop heads frequently to avoid redepositing any contamination. Allow 1 hour (minimum) for solvent to evaporate.

b. Apply P-801-VOC Interlaminary Primer to the areas of existing coating to be recoated. Apply P-801-VOC Interlaminary Primer at a rate of 300-400 square feet per gallon. The primer may be applied with a flat squeegee, roller or sprayer. Ensure proper coverage rates are achieved.

CAUTION: P-801-VOC Interlaminary Primer is a unique product that is designed to "bite" into the existing coating, then co-cure with the coating. Because of its ability to soften and penetrate into the existing coating, extreme care must be observed in applying this primer. **AVOID PUDDLES OR PONDING**. Puddles of the primer may result in a lifting of the existing coating or may result in out-gassing which will show as bubbles in the new coating.

c. Allow P-801-VOC Interlaminary Primer to cure for 1 hour minimum, 8 hours maximum. Primer is sufficiently cured when it will not transfer when touched. In the event area cannot be coated within the maximum time period, the area must be re-primed.

d. Apply Pecora 806 Top Coat to P-801-VOC primed existing coating at a rate of 100 square feet per gallon or as needed in order to obtain a minimum thickness of 16 wet mils. Allow the Pecora 806 Base Coat to cure overnight (16 hours minimum).

e. Immediately broadcast 16-30 mesh (dry) silica sand into the wet Topcoat at a rate of 10-15 pounds per 100 square feet and backroll to completely encapsulate the sand.

f. Allow the Topcoat to cure for 48-72 hours at 75°F before opening deck to pedestrian traffic. At lower temperatures more time may be required.

Extended Recoat Warranty Application Requirements: An extended pedestrian recoat material warranty is available and will require the application of the Pecora 802 prior to Step d. Apply the 802 base coat at a rate of 50 square feet per gallon to obtain 32 wet mils over all existing coating prior to the application of the 806 top coat and aggregate. Allow the 802 FC base coat to cure overnight.

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SECTION #7

WARRANTY

Material Warranties

Please refer to Pecora Technical Service Dept for Warranty Information and Guidelines