

## **Technical Bulletin PEC184**

### **Pecora Deck 800 Deck Coating Field Adhesion Testing**

### **New and Existing Deck Coating Applications**

A critical aspect of a successful deck coating application is obtaining adequate coating adhesion to the substrate. Approved substrates include new and existing concrete, plywood and existing polyurethane-based deck coatings. The Pecora Deck 802 Base Coats have superior adhesion to concrete and plywood substrates but can be compromised by the surface finishes and curing compounds. The 804 Intermediate and 806 Top coats exhibit excellent adhesion to existing polyurethane deck coatings and are utilized when installing remedial applications.

Field adhesion tests are performed to determine if adequate adhesion can be achieved or if the surface requires special preparation. Field adhesion tests should be performed on representative surfaces before substantial work has commenced. The subsequent field adhesion test procedure applies to both new and remedial deck coating applications:

1. Find a 12 in. x 12 in. inconspicuous area to perform the adhesion test.
2. The concrete test area should be clean and dry with ICRI Concrete Surface Profile (CSP) of 3 to 5 or if coating over a substrate with existing deck coating, the existing coatings must be clean and dry.
3. Apply the appropriate primer at a rate of 300 square feet per gallon in a 4 in. x 12 in. test area and let dry 1 hour. Primer cure times will vary depending on site conditions. Elevated temperatures and humidity will accelerate the cure.
4. Apply Pecora deck coating a minimum of 4 inches wide by 12 in. long and install a piece of 2 in x12 in reinforcing fabric with 6" set into the base coat while still wet. Using a putty-knife, tool the reinforcing fabric flat into the base coat and apply additional Pecora deck coating to fully embed the fabric.
  - a. Coating thickness should be maintained at 40 - 50 wet mils. Allow the Pecora deck coating to cure for 48 hours before testing. Cure times will vary depending on site conditions. Elevated temperatures and humidity will accelerate the cure.
5. Make razor cuts down each side of the reinforcing fabric which was embedded into the base coat and perform a pull test by using a handheld force gauge that measures pounds force (lbf).
6. Attach the reinforcing fabric to the force gauge and pull at 90 degrees to the substrate and record reading.
7. When testing quantitatively a reading of >10 lbf on 1 inch wide test strip OR >20 lbf on 2 inch wide test strip coupled with 100% cohesive failure is desirable. Adhesive failure coupled with <10 lbf on 1 inch wide test strip OR <20 lbf on 2 inch wide test strip would be considered a failing result.
8. Qualitative testing (no use of force gauge) should result in 100% cohesive failure, meaning coating residue is left on 100% of bonded surface with considerable force required to pull off embedded fabric.

***Note: Please submit all field test results to Pecora Technical Service for warranty issuance purposes.***



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**Field Adhesion Test Log / Pecora Deck 800 Series**

1. Authorized Pecora Representative: \_\_\_\_\_
2. Date of Application: \_\_\_\_\_
3. Coating Applicator: \_\_\_\_\_
4. Project Reference: \_\_\_\_\_
  - a. Project Address: \_\_\_\_\_
5. Primer utilized, product name: \_\_\_\_\_
6. Base Coat utilized, product name: \_\_\_\_\_
7. Intermediate Coat utilized<sup>1</sup>, product name: \_\_\_\_\_
8. Top Coat utilized<sup>1</sup>, product name: \_\_\_\_\_
9. Surface Description:
  - a. Concrete
    - i. Existing/new: \_\_\_\_\_
      1. Age, if new: \_\_\_\_\_
    - ii. Moisture content, if known: \_\_\_\_\_
    - iii. Surface profile (ICRI): \_\_\_\_\_
  - b. Plywood
    - i. Type: \_\_\_\_\_
  - c. Existing Deck Coating
    - i. Manufacturer name: \_\_\_\_\_
    - ii. Product name: \_\_\_\_\_
10. Conditions at time of test:
  - a. Date of Adhesion Test: \_\_\_\_\_
  - b. Temperature, °F: \_\_\_\_\_
  - c. Humidity, %: \_\_\_\_\_
  - d. Direct Sunlight - yes/no: \_\_\_\_\_
11. Quantitative/Qualitative:
  - a. Qualitative :
    - i. % cohesive failure: \_\_\_\_\_
  - b. Quantitative:
    - i. % cohesive failure: \_\_\_\_\_
    - ii. PLI (pounds per linear inch width): \_\_\_\_\_
12. Observations/Notes: \_\_\_\_\_

<sup>1</sup> Top & Intermediate coat adhesion testing generally applies to remedial applications over existing deck coating materials only.

