

PCA P17

Field Painting of Vertical Concrete

1. Scope

- 1.1 The purpose of this Standard is to clarify the various entities involved when vertical concrete is field painted.
- 1.2 This Standard defines criteria to determine if vertical concrete has been properly prepared to receive field applied paint.

2. Significance and Use

- 2.1 Numerous paint failures have occurred when vertical concrete is field painted.
- 2.2 The project documents are often unclear about the specific responsibilities of the various entities involved when vertical concrete is field painted.
- 2.3 The purpose of this Standard is to develop a protocol to follow when vertical concrete is field painted.

3. Definitions and Trade Terms

- 3.1 Definitions and Trade Terms see P9.

4. Reference Documents and Standards

- 4.1 Reference Documents and Standards see P9.

5. Standard Specification

- 5.1 Bond breakers and curing oils that interfere with coating adhesion are often employed in the manufacture of vertical concrete panels. The project documents should specify the surface preparation method necessary and the entity responsible for this operation. Unless specified in the contract documents, removal of bond breaker materials and curing oils is not the responsibility of the Painting Contractor.
- 5.2 The surface profile of the tilt-up or vertical concrete panels may be very smooth providing little, if any, mechanical adhesion of coatings. The project documents should specify the surface preparation method necessary and the entity responsible.

- 5.2.1 It is recommended that the Painting Contractor prepare a Benchmark Sample of the specified coating system on the surface of the vertical concrete panels in accordance with PCA Standard P5. After the coating has cured, then adhesion by tests in accordance with ASTM D3359 or ASTM D7234 or their equivalents shall be conducted.
- 5.2.2 If results obtained are deemed to be unsatisfactory, then additional surface preparation is necessary.
- 5.3 Prior to applying coatings, the Painting Contractor should determine the pH of the surface of vertical concrete in accordance with ASTM D4262 or its equivalent.
 - 5.3.1 Coating application should not be initiated until the surface pH is within the coating manufacturer's recommended range for the specific coating system specified.
- 5.4 When vertical concrete panels are manufactured there are often small voids commonly referred to as bug holes or honeycomb which can affect the quality of appearance.

6. Comments

- 6.1 This Standard establishes criteria for field painting of vertical concrete.
- 6.2 This Standard clarifies areas of responsibility. Improved communication reduces misunderstandings.
- 6.3 This Standard is a nationally recognized consensus document for the painting and coating industry's work practices.

7. Disclaimer of Liability

- 7.1. PCA does not warrant or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any of the information contained herein.