

**SECTION 03 05 00**

**COMMON WORK RESULTS FOR CONCRETE**

**09 97 00**

**SSPECIALTY COATINGS**

Weld Crete

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*This guide specification has been prepared by Larsen Products in printed and electronic media, as an aid to specifiers in preparing written construction documents for bonding agents. Weld-Crete® bonds new concrete, stucco, tile setting beds and terrazzo to any structurally sound surface, interior or exterior. It incorporates polyvinyl acetate homopolymer in a patented formulation and will bond new concrete, Portland cement plaster and cementitious mixes to structurally sound concrete floors, walls, columns, beams, steps and ramps.*

*Edit entire master to suit project requirements. Modify or add items as necessary. Delete items which are not applicable. Words and sentences within brackets [ ] reflect a choice to be made regarding inclusion or exclusion of a particular item or statement. This section may include performance, proprietary and descriptive type specifications. Edit to avoid conflicting requirements. Editor notes to guide the specifier are included between lines of asterisks to assist in choices to be made. Remove these notes before final printing of specification.*

*This guide specification is written around the Construction Specifications Institute (CSI) Section Format standards.*

*For specification assistance on specific product applications, please contact our offices or any of our local product representatives throughout the country.*

*Larsen Products reserves the right to modify these guide specifications at any time. Updates for this guide specification will be posted on the manufacturer's web site and/or in printed matter as they occur. Manufacturer makes no expressed or implied warranties regarding content, errors, or omissions in the information presented.*

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1.GENERAL

1. RELATED DOCUMENTS

A. Section includes application of polyvinyl acetate homopolymer bonding agent for:

1. Concrete, Portland cement stucco.
2. Concrete floors, walls, columns, beams, steps and ramps.

2. SUMMARY

A. Section includes bonding agents for any structurally sound substrate both interior and exterior

3. SUBMITTALS

A. Product Data:

1. Submit manufacturer's descriptive literature and product specifications for each product.
2. Submit laboratory tests or data that validate product compliance with the performance criteria specified.

4. QUALITY ASSURANCE

A. Manufacturer Qualifications:

1. Company specializing in manufacturing Products specified in this Section with minimum **[10]** years documented experience.

5. DELIVERY AND STORAGE

- A. Deliver, store off the ground and covered, handle and protect products from moisture in accordance with manufacturer's instructions.
- B. Deliver materials in manufacturer's unopened containers, fully identified with brand, type, grade, class and all other qualifying information. Take necessary precautions to keep products clean, dry and free of damage.

6. WARRANTY

- A. Materials are guaranteed with respect to uniformity and quality within manufacturer's specifications.

7. PROJECT CONDITIONS

- A. Air and surface temperatures must be above freezing during application.

2.PRODUCTS

1. MANUFACTURER

- A. Larsen Products 8264 Preston Court Jessup, MD 20794 Phone:800.633.6668  
www.larsenproducts.com

2. MATERIALS

Weld Crete is a polyvinyl acetate homopolymer chemical concrete bonding agent, in a patented formulation. For exterior and interior use.

1. Flexural Bond Strength: ASTM C-78 (concrete beams laminated with bonding agent).
2. Shear Bond Strength: ASTM C-1042 (slant shear cylinder test).
3. Temperature Range: ASTM C-932 (Weld-Crete®);
4. Freeze-thaw Stability: 5 cycles freeze (-10° F & thaw). Freeze-thaw stable.
5. Toxicity: Enclosed mice exposed to 30 cc volatilized bonding agent for 1 hr. Non-toxic, no ill effects after 7 days.
6. Fire Resistance: ASTM E-119 (bonded assembly). Passed 2 hr. Fire Test 1800° F and 1 hr. Hose Stream Test.
7. Flammability: Lab. tests for fire resistance. Non-flammable; meets MIL-B-19235C.
8. Acid Resistance: 1" concrete slabs bonded to 1/2" gypsum plaster subjected to seepage of strong deter- gents & synthetic urine for 10 hrs. a day. No bond failure after 25 consecutive days. Also unaffected by alkalinity of cement.
9. Life Expectancy: Lab. tested & field proven. Non-deteriorating bond; retains strength & flexibility.

### 3.EXECUTION

#### 1. EXAMINATION

- A. Examine substrates and adjoining construction, and conditions under which Work is to be installed. Do not proceed with Work until unsatisfactory conditions are corrected.
- B. Verify the following substrate conditions before application:
  - 1. That substrate condition is satisfactory and in accordance with manufacturer's instructions.
  - 2. That concrete surfaces are free of voids, spalled areas, loose aggregate.

#### 2. PREPARATION

- A. Substrate must be structurally sound.
- B. Surfaces to receive Weld-Crete® MUST BE CLEAN, free from loose material, dust, dirt, oil, grease, wax, loose paint, mildew, rust, laitance or efflorescence.
- C. On newly placed concrete floors to receive a bonded topping, give the surface a rake or broom finish. Surfaces with form-releasing agents, curing compounds, hardeners and sealers must be compatible with Weld-Crete®. Glossy painted surfaces should be dulled with an abrasive. New paint should cure 7 days before applying Weld-Crete®. Paints must be firmly adhered to the substrate. Do not apply over paints or materials that are soluble in water.
- D. Do not apply over frozen concrete or plastic surfaces. May be placed over dry or damp surfaces. (Eliminate all water puddles).
- E. Do not apply where hydrostatic pressure is present in the substrate. Surfaces should be inspected for excessive cracking and properly prepared prior to application of the bonding agent.

#### 3. APPLICATION

- A. Application of bonding agent: Apply Weld-Crete® uniformly, using brush, roller or spray, to form a continuous blue film over the entire surface. Allow one hour to dry. EXCEPTION: FAST SET PATCHING CEMENTS AND GROUTS MUST BE APPLIED WHILE THE WELD-CRETE® FILM IS STILL TACKY.
- B. Inspection of bonding agent: Prior to placement of cementitious topping, inspect bonding agent application for continuity of blue film over the entire bonding surface. Do not apply new concrete to frozen Weld-Crete®. Reapply Weld-Crete® over areas not satisfactorily covered. Protect the applied film from dirt and debris until the fresh concrete overlay is in place.

#### 4. Application of Concrete Overlays

- A. Delayed toppings shall be over Weld-Crete® in a minimum 1/2 inch thickness on surfaces shown and specified. Provide for a butt joint at adjacent edges. All joints must duplicate the joints in the substrate and all joints must be sealed against water penetration. Form isolation joints or cut with a dry vacuum saw. Cut control joints not more than one half the depth of the concrete overlay. Remove standing water from newly bonded concrete surfaces. Concrete toppings can be applied as soon as the film is dry, or delayed a week to 10 days, with no effect

on the bond. Follow same application for overlays on precast hollowcore floor systems. Follow Portland Cement Association Standards.

- B. Follow accepted industry standards for protection of newly bonded concrete. Do not use a “wet” type saw to cut isolation joints on newly bonded concrete overlays. Seal all joints against water penetration.
5. Bonded Concrete Shear Wall
- A. Prior to application of Weld-Crete®, set all anchors on existing wall as shown and specified. Apply Weld-Crete® as directed, then proceed with placement of reinforcing steel, erection of forms and placement of concrete. Seal all joints against water penetration.
6. Application of Portland Cement Plaster
- A. Apply Portland Cement Plaster over Weld-Crete® on surfaces as shown and specified. NOTE: Portland Cement Plaster can be applied as soon as film is dry, or delayed a week to 10 days, with no effect on the bond. Seal all joints against water penetration.
  - B. Two and Three Coat Applied: Apply scratch coat a minimum of 3/8 inch over Weld-Crete® on surfaces as shown and specified. NOTE: Do not scratch through to the Weld-Crete® film. Allow to dry 24 hours. Follow with second and third coat applications. Seal all joints against water penetration.
  - C. Two Coat Spray Applied: Apply a thin dash coat by hand or spray over Weld-Crete® and allow dash to firm up and become hard. Apply finish coat 3/8 inch thick. Seal all joints against water penetration. NOTE: Weld-Crete® helps equalize suction on vertical applications, which produces a more uniform finish coat. For less than 3/8 inch thickness, refer to Acrylic Ad-Mix 101®.
7. Application of Mortar Setting Beds
- A. To receive ceramic tile, precast terrazzo, etc., application of mortar setting beds shall be a minimum of 3/8 inch thickness over Weld-Crete® on surfaces as shown and specified. Seal all joints against water penetration.
8. Application of Non-Shrink Fast-Set Mortars and Grouts
- A. Applications of non-shrink fast-set mortars and grouts shall be over Weld-Crete® while Weld-Crete® is still tacky. Seal all joints against water penetration.
9. Coverage
- A. 200 to 300 sq. ft. /gallon, approximately, depends upon method of application, temperatures, porosity and texture of the substrate.

END OF SECTION