

TRUE-SCREED® Cementitious Leveling Underlayment

Recommended Specification for Pre-Cast Concrete Plank

PART I. GENERAL

1.1 Scope

Specify to meet project requirements. The conditions of the Contract (General, Supplementary, and other conditions) and the General Requirements (Sections of Division I) govern the provisions of this section. The articles contained in this section may modify, delete or add to the conditions of the contract.

1.2 Qualifications

- A. Supplier: Hacker Industries, Inc., Newport Beach, California.
- B. Installer: Installation of TRUE-SCREED® Cementitious Leveling Underlayment (CLU) shall be by a certified Licensed Applicator of Hacker Industries, Inc. using mixing and pumping equipment approved by Hacker Industries, Inc.
- C. All materials specified herein shall be approved by Hacker Industries, Inc., Newport Beach, CA. All others must receive prior approval.
- D. Compressive strengths can be specified up to 5800 psi (50.0 MPa).
- E. Subfloor shall support live and dead design loads with a maximum L/360 deflection.
- F. Concrete Plank shall be suitable to receive installation of self-leveling underlayments.
- G. Ambient and substrate temperature must be a minimum of 50° F (10°C) before, during, and for 7 days after underlayment installation.
- H. Material shall be delivered in original, unopened bags. Material shall be stored away from prolonged exposure to harmful environmental conditions and at a minimum temperature of 50°F (10°C). Do not allow bags to get wet.

PART II. PRODUCTS

2.1 Materials

- A. Portland cement-based Leveling Floor Underlayment: Floor underlayment shall be TRUE-SCREED® CLU as supplied by Hacker Industries, Inc., Newport Beach, CA.
- B. Primer: TRUE-SCREED® CLU Primer or approved equal.
- C. Sand: Sand shall meet the requirements of the TRUE-SCREED® CLU Sand Specification.
- D. Water: Potable and free from impurities.

PART III. EXECUTION

3.1 Surface Preparation

- A. General Contractor shall confirm the pre-cast concrete plank is structurally sound, of adequate strength, and that project conditions are suitable for installation of a floor underlayment.
- B. Acid etching and the use of sweeping compounds and solvents are unacceptable.
- C. The surface of the structural, pre-cast concrete plank must be sound, clean and dry. The surface must be free of construction wastes such as acoustic and wall texture, over spray, dirt, laitance, solvents, oil, grease, residual construction adhesives, adhesive removers, curing and sealing compounds and other foreign materials and/or bond breakers that can interfere with adhesion.
 - 1. Existing soiled, contaminated, or non-porous pre-cast concrete plank shall be mechanically profiled and prepared using approved methods (reference ICRI CSP 2 standards for acceptable profile height).
 - 2. New, clean and non-contaminated pre-cast concrete plank may be suitable for application without mechanical surface preparation. Perform adhesion test to confirm adequate bond strength between the subfloor and TRUE-SCREED® CLU.
- D. Before, during, and for 7 days after installation of the underlayment, the General Contractor shall be responsible for assuring that the building is ventilated and heated or cooled to a minimum of 50°F (10°C) and a maximum of 90°F (32.2°C). Temperature, humidity, and ventilation will affect dry time.

- E. TRUE-SCREED® CLU is a non-structural material. Any structural cracks or joints in the pre-cast concrete plank shall be repaired and grouted by the general contractor prior to the underlayment installation.

3.2 Priming

Always prime prepared surface with Hacker Industries, Inc. approved primer prior to installation of TRUE-SCREED® CLU per specifications. Porous surfaces may require a double priming application. For porous grout joints, pre-prime joints to seal the grout prior to priming the plank surface.

3.3 Mix Design

- A. TRUE-SCREED® CLU shall be installed using Hacker Industries, Inc. approved mixing and pumping equipment with a minimum of 110 feet (33m) of hose.
- B. Mixer and pump must be clean per manufacturer's specifications and in good working condition.
- C. Use a mesh screen at the end of the hose to catch any foreign material.
- D. Mix in 2-bag batches.
- E. Mix each bag of TRUE-SCREED® CLU with 3.75 gallons (4.2L) of cool, potable water. Water meter is required. Do not over-water.
- F. Check the consistency of the product on the floor to ensure a uniform distribution of the sand aggregate at both the top surface and bottom of the pour. If settling is occurring, reduce the water amount and re-check.

3.4. Cementitious Underlayment Application

- A. Scheduling:
 - 1. Application of TRUE-SCREED® CLU shall not begin until the building is dried in.
 - 2. Before installation of underlayment, the condition of the pre-cast concrete plank and any required elevations shall be inspected and approved by the General Contractor and/or Owner.
- B. Application:
 - 1. General Contractor shall provide a clean, dust-free, shop vacuumed surface prior to primer application.
 - 2. Pre-cast concrete plank shall be primed as recommended by Hacker Industries, Inc.'s product specifications.

3. Install TRUE-SCREED® CLU at specified thickness [1/2" (12.7mm) minimum to 2" (51mm) maximum] by placing contents of bags, sand and water into approved high-speed mixing device and blend for a minimum of 2 minutes. TRUE-SCREED® CLU should be pumped onto floor areas, screeding and floating to a smooth surface. Place as continuously as possible.
 4. TRUE-SCREED® CLU can be feather edged to adjoin existing concrete substrates.
 5. TRUE-SCREED® CLU is suitable for interior applications only and must be covered by a finished floor material.
- C. Protection: After installation, protect the surface from contaminants such as paint, solvents, adhesives, or other materials which will adversely affect the installation of finished floor goods.
- D. Drying: TRUE-SCREED® CLU is designed to self-cure; do not use a damp curing method and/or sealing compounds. To achieve the optimum floor, please adhere to the following procedures:
1. Protect the new floor from excessive heat and drafts during curing.
 2. Avoid walking on surface for at least 2-3 hours after installation; adjust for varying humidity and temperature conditions.

3.5 Preparation for the Installation of Floor Coverings

- A. TRUE-SCREED® CLU must be tested for moisture and meet floor covering manufacturers' requirements prior to finished floor installation.
- B. Contact Hacker Industries, Inc. for Guidelines for Installing Finished Floor Coverings. This is not a warranty and shall be used as a guideline only.

3.6 Field Quality Control

- A. Slump Test: TRUE-SCREED® CLU mix shall be tested for slump as it is being pumped using a 2" by 4" (51mm by 102mm) cylinder and Plexiglas.
- B. Field Samples: Cubes shall be tested as recommended by Hacker Industries, Inc. in accordance with ASTM C109 modified. Test results shall be available to architect and/or contractor upon prior request from applicator. Please contact Hacker Industries, Inc. for testing procedures.