

SECTION 03-5400
CEMENTITIOUS UNDERLAYMENT

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Cementitious floor underlayment for use over existing concrete substrates in areas requiring level floor for installation of vinyl tile, sheet vinyl, and carpeted floor finishes.
- B. Floor underlayment primer.

1.2 QUALITY ASSURANCE

- A. Manufacturer: Floor underlayment shall be supplied by a firm regularly engaged in the production of cementitious, non-structural underlayment materials.
- B. Applicator: Installation shall be by an applicator regularly engaged in and properly equipped to install cementitious floor underlayment and able to demonstrate a minimum of three years experience with similar applications.

1.3 SUBMITTALS

- A. Submit the following in accordance with Section 01-3323
- B. Product Data: Describing material, mixing and methods of application.

1.4 DELIVERY AND STORAGE

- A. Deliver cementitious materials in manufacturer's original undamaged packages and primer in plastic jugs. Comply with provisions of Section 01-6500.
- B. Store and handle materials to protect them from exposure to the elements or physical damage. Comply with provisions of Section 01-6600. Do not allow Liquid Polymer to freeze.
- C. Do not use cement which shows indications of moisture damage, caking or other signs of deterioration. Damaged or deteriorated materials shall be removed from the premises.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Floor Underlayment: Mastertop 110, underlayment self-leveling cementitious underlayment as manufactured by Chemrex Master Builders, Inc., Cleveland, OH with the following material properties.
 - 1. Compressive Strength: 3500 psi at 28 days.
 - 2. Flexural Strength: 900 psi at 28 days.
 - 3. Self-Leveling Time: 15 minutes at 65°F.
 - 4. Initial Set Time: Approximately 2 hours at 65°F.
 - 5. Final Set Time: Approximately 3 hours at 65°F.

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6. Tensile Bond Strength: Approximately 163 psi at 28 days.
 7. Coverage: 25 square feet at 1/4" in thickness.
- B. Primer: M.B.Primer as manufactured by Master Builders, Inc., Cleveland, OH.
 - C. Water: Potable, free from impurities.
 - D. Substitutions: Products of other manufacturers may be submitted for review in accordance with Section 01-2513.

2.2 MIX DESIGNS

- A. General Requirements: Underlayment 110 proportions and methods shall be in strict accordance with product manufacturer's current recommendations.

PART 3 - EXECUTION

3.1 PREPARATION

- A. General: Comply with manufacturer's instructions for preparation of substrate. Verify that penetrations and expansion joints are in place and secured and that floor drains are properly clamped in position.
- B. Cleaning of Substrate: Clean substrate of dust, debris, oil, sealers, curing compounds, paint, polymer coatings or other foreign (bond breaking) matter.
- C. Leak Prevention: Fill cracks and voids with caulking to prevent seepage during underlayment placement.
- D. Priming of Substrate: Prime area with a broom application of primer; allow to dry completely prior to placement of underlayment. Remove all puddles and thick areas.

3.2 APPLICATION OF UNDERLAYMENT

- A. Scheduling: Application of cementitious underlayment shall not begin until the building is enclosed, including roof, windows, and drywall taped.
- B. Application: Cementitious underlayment shall be placed at a fluid consistency and pumped to a thickness of not greater than 1/2" (unextended) in all areas noted on drawings. Extend underlayment with the use of 15 lbs. well graded, washed, 1/8" topsize, clean sand.
- C. Windows and doors in areas receiving underlayment shall be closed during and following application. Apply water-based sealer if underlayment will be exposed to the elements.

3.3 PROTECTION OF UNDERLAYMENT

- A. Protection From Foot Traffic: Protect from foot traffic for 4 hours and from installation of finish flooring for 24 hours following application of underlayment.
- B. Repair of Underlayment: Repair or replace defective or damaged underlayment.

END OF SECTION