



Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format. The section must be carefully reviewed and edited by the Architect or Engineer to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the drawings. Delete all "Specifier Notes" when editing this section.

SECTION 03540

PORTLAND CEMENT UNDERLAYMENT

Specifier Notes: This section covers Euclid "Flo-Top" and "Super Flo-Top" self-leveling portland cement underlayment for placement over concrete floors. Flo-Top is used for interior applications in areas not continuously subjected to moisture or water. Super Flo-Top is used for interior or exterior applications in areas not subjected to freeze/thaw conditions. Consult Euclid for assistance in editing this section for the specific application.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Self-leveling portland cement underlayment for placement over concrete floors.

1.2 RELATED SECTIONS

Specifier Notes: Edit the following list of related sections as required for the project. List other sections with work directly related to this section.

- A. Section 03300 - Cast-in-Place Concrete.

1.3 REFERENCES

- A. ASTM C 109 - Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens).
- B. ASTM C 191 - Time of Setting of Hydraulic Cement by Vicat Needle.

- C. ASTM C 1042 - Bond Strength of Latex Systems Used With Concrete By Slant Shear.

1.4 SUBMITTALS

- A. Comply with Section 01330 - Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including surface preparation and placement instructions.
- C. Manufacturer's Certification: Submit manufacturer's ISO 9001/9002 certification.

1.5 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: ISO 9001/9002 registered or provide proof of documented quality assurance system. Quality assurance system shall be registered by independent registrar accredited by ANSI Registrar Accreditation Board (ANSI-RAB) or by another internationally recognized body.

Specifier Notes: Describe requirements for a meeting to coordinate the placement of the underlayment and to sequence related work.

- B. Pre-placement Meeting: Convene a pre-placement meeting [2 weeks] [_____] before start of placement of underlayment. Require attendance of parties directly affecting work of this section, including Contractor, Engineer, and manufacturer's representative. Review surface preparation, mixing, placement, curing, protection, and coordination with other work.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage: Store materials in clean, dry area in accordance with manufacturer's instructions. Keep containers sealed until ready for use.
- C. Handling: Protect materials during handling and placement to prevent damage or contamination.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Do not place underlayment when air temperature will fall below 40 degrees F (4 degrees C) within 72 hours.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. The Euclid Chemical Company, 19218 Redwood Road, Cleveland, Ohio 44110. Toll Free (800) 321-7628. Phone (216) 531-9222. Fax (216) 531-9596. Web Site www.euclidchemical.com.

2.2 PORTLAND CEMENT UNDERLAYMENT

Specifier Notes: Specify Flo-Top or Super Flo-Top underlayment.

- A. Underlayment: Flo-Top.
1. Description: 1-component, self-leveling, gypsum-based underlayment.
 2. Compressive Strength, ASTM C 109, 2-Inch (50-mm) Cubes:
 - a. 24 Hours: 2,300 psi (16 MPa).
 - b. 28 Days: 5,000 psi (34 MPa).
 3. Bond Strength, ASTM C 1042:
 - a. 7 Days: 700 psi (5 MPa).
 - b. 14 Days: 1,000 psi (7 MPa).
 4. Unit Weight: 115 lb/ft³ (1,842 kg/m³).
 5. Set Time, ASTM C 191, 70 Degrees F (21 Degrees C):
 - a. Initial Set: 45 minutes.
 - b. Final Set: 70 minutes.
- B. Underlayment: Super Flo-Top.
1. Description: 1-component, self-leveling, portland cement underlayment.
 2. Compressive Strength, ASTM C 109, 2-Inch (50-mm) Cubes:
 - a. 24 Hours: 2,600 psi (18 MPa).
 - b. 28 Days: 5,000 psi (34 MPa).
 3. Bond Strength, ASTM C 1042:
 - a. 7 Days: 700 psi (5 MPa).
 - b. 14 Days: 1,000 psi (7 MPa).
 4. Unit Weight: 118 lb/ft³ (1,890 kg/m³).
 5. Set Time, ASTM C 191, 70 Degrees F (21 Degrees C): 1 to 1.5 hours.
- C. Water: Clean and potable.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to receive underlayment. Notify Engineer if surfaces are not acceptable. Do not begin surface preparation or placement until unacceptable conditions are corrected.

3.2 SURFACE PREPARATION

- A. Prepare concrete surfaces in accordance with manufacturer's instructions.
- B. Ensure concrete is a minimum of 3 days old.
- C. Apply broom texture to concrete at time of placement.
- D. Ensure concrete surfaces are clean and rough.
- E. Remove dirt, dust, oil, grease, debris, paint, curing compounds, sealers, and unsound concrete.

Specifier Notes: Prepare surfaces by acid etching only when mechanical preparation is impractical. Only contractors experienced in the acid etching process should use this means of surface preparation. Consult Euclid for additional information.

- F. Prepare surfaces mechanically to give open surface texture.
- G. Remove residue on concrete surfaces.
- H. Prime surfaces with Euco Weld or Flex-Con/cement slurry coat in accordance with manufacturer's instructions.

3.3 MIXING

- A. Mix underlayment in accordance with manufacturer's instructions.
- B. Ensure materials are between 60 degrees F (16 degrees C) and 90 degrees F (32 degrees C).
- C. Do not use water at a rate that will cause bleeding or segregation.
- D. Do not add admixtures or calcium chloride.

3.4 PLACEMENT

- A. Place underlayment in accordance with manufacturer's instructions.
- B. Place underlayment continuously to provide smooth and uniform surface.
- C. Place mortar to a thickness from featheredge to 1 inch (25 mm).

3.5 CURING

- A. Fog spray or wet cure underlayment for a minimum of 3 hours after final set in hot, windy, or rapid drying conditions.

3.6 PROTECTION

- A. Protect placed underlayment from freezing for a minimum of 7 days.
- B. Protect placed underlayment from damage during construction.

END OF SECTION