



TILT FINISH
Smoothing and Finishing Compound for Concrete Surfaces

SECTION 03 01 30
MAINTENANCE OF CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Products for maintenance of concrete, including the following:
 - 1. For leveling and finish concrete and masonry walls.

1.2 RELATED SECTIONS

- A. Section 03 30 00 - Cast-in-Place Concrete.
- B. Section 03 90 00 – Concrete Restoration and Cleaning

1.3 REFERENCES

- A. ASTM International:
 - 1. ASTM C109 - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens).

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Verification Samples: For each finish product specified, two samples, minimum size 6" (150 mm) square representing actual product, color, and patterns.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum 5 years' experience manufacturing similar products.
- B. Installer Qualifications: Minimum 2 years' experience installing similar products.
- C. Source Limitations: For repair products, obtain each color, grade, finish, type, and variety of product from single source and from single manufacturer with resources to provide products of consistent quality in appearance and physical properties.
- D. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship is approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.



1.6 PRE-INSTALLATION MEETINGS

- A. Convene at least two weeks prior to starting work of this section.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.
- B. Handling: Handle materials to avoid damage.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.9 SEQUENCING

- A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Product Performance:
 - Compressive Strength – ASTM C109 28 days > 2,000 psi (13.8 MPa)
 - VOCs 0 g per L
 - Color Light gray
- B. Acceptable Manufacturer:
 - MAPEI North America
 - 1144 E. Newport Center Dr.; Deerfield Beach, FL 33442
 - Toll-Free for CRS Technical Services: Tel. 888-365-0614
 - Email: CRS@mapei.com
 - Web: www.mapei.com
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
- D. Substitutions: Not permitted.

2.2 POLYMER-MODIFIED VERTICAL AND OVERHEAD CONCRETE REPAIR

- A. Fast-Setting, Polymer-Modified Cementitious Repair Material: Packaged, dry mix for repair of concrete.
 - 1. Product: Subject to compliance with requirements, provide MAPEI Corporation; Tilt Finish.
 - 2. Compressive Strength: Not less than 2,000 psi (13.8 MPa) within 28 days when tested according to ASTM C109.



2.3 MISCELLANEOUS MATERIALS

- A. Portland Cement: ASTM C150/C150M, Type I, II or III unless otherwise indicated.
- B. Water: Potable.

2.4 MIXES

- A. General: Mix products in clean containers according to manufacturer's written instructions.
 - 1. Do not add water, thinners or additives unless recommended by manufacturer.
 - 2. When practical, use manufacturer's premeasured packages to ensure that materials are mixed in proper proportions. When premeasured packages are not used, measure ingredients using graduated measuring containers; do not estimate quantities or use shovels or trowels as units of measure.
 - 3. Do not mix more materials than can be used within time limits recommended by manufacturer. Discard materials that have begun to set.
- B. Concrete: Comply with Section 03 30 00 - Cast-in-Place Concrete.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Properly prepared concrete at least 28 days old, stable, sound and dry.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Concrete surface must be free of loose particles, efflorescence, paints, tars, grease, asphaltic materials, bond breakers, curing compounds, wax, and dry foreign substances or any conditions that may affect product performance or proper bonding.
- B. Mechanically profile and prepare concrete surfaces by engineer-approved methods in accordance with the most current ICRI 310.2R Guidelines.
- C. Ensure that the concrete substrate is saturated surface-dry (SSD) before installing Tilt Finish.

3.3 MIXING

- A. Before product use, take appropriate safety precautions. Refer to the Safety Data Sheet for details. The mixing ratio is 3.25 to 3.46 U.S. qts. (4.97 to 5.68 L) of clean, potable water per 20 lbs. (9.07 kg) of Tilt Finish.
- B. For additional durability, Tilt Finish may be mixed with Planicrete AC rather than with water alone. Dilute Planicrete AC at a ratio of 2 to 1 (water to Planicrete AC), and add between 3.25 to 3.46 U.S. qts. (3.08 to 3.17 L) of the diluted mixture per 20-lb. (9.07-kg) bag of Tilt Finish.
- C. Pour the required amount of the mixing liquid into a clean mixing container and mix while slowly adding power.
- D. Mix with a medium-speed drill (at 550 to 800 rpm) and an appropriate paddle for 1.5 to 2 minutes, ensuring a lump-free, homogeneous consistency.



3.4 INSTALLATION

Read all installation instructions thoroughly before installation.

- A. Immediately after mixing, place Tilt Finish onto the surface and work it in with a trowel.
- B. Allow the product to set before finishing.
- C. Trowel to the desired surface finish shortly after placement.

D. The finished surface may be lightly sanded as soon as it is hard, and primed/painted in 24 hours with a compatible water-based paint or coating.

3.5 CURING

- A. Tilt Finish is self-curing; do not use damp-curing method.
- B. Tilt Finish can be sealed with curing compounds and compatible water-based sealers within a few hours of placement when temperatures are above 70°F (21°C). Allow 24 hours before applying solvent-based sealers.

END OF SECTION