Tile Crete Floor Mud Underlayment Mix

1. PRODUCT NAME
Tenon® Tile Crete® Floor Mud Underlayment Mix

2. MANUFACTURER
TCC Materials®
2025 Centre Pointe Blvd.
Mendota Heights, MN 55120 USA
Phone: 1.651.688.9116
Fax: 1.651.688.9164
Internet: tccmaterials.com

3. PRODUCT DESCRIPTION
Tenon Tile Crete Floor Mud Underlayment Mix is a blend of cementitious material, and oven-dried sand. It is designed to produce a highly-bondable substrate, and to optimize consistency between batches. It can be used as a setting bed underlayment for ceramic, mosaic, stone, quarry, and paver tile over concrete or wood substrates including countertops. Tenon Tile Crete Floor Mud Underlayment Mix is ideal for forming shower pans, and curbs as well as installations requiring a slope to drain.

Interior Applications: Tile Crete Floor Mud Underlayment Mix (105136, 105141, 105154), Fast-Set Tile Crete Floor Mud Underlayment Mix (105178)

Exterior Applications: Tile Crete Floor Mud Underlayment Mix (105165) is a 3:1 mix used in conjunction with Tenon Mighty Bond™ additive.

Features and Benefits
- Excellent workability
- Convenient for small or large jobs
- Pre-blended, just add water, mix, and use
- Provides exceptional bonding surface
- Ideal for levelling or creating sloped floors
- Meets ANSI A108.1A
- Can be used up to 4” (10 cm) depth with fine or 50/50 blend; or 8” (20 cm) with coarse blend

Uses
- Interior or exterior
- Over concrete floors
- Forming shower pans
- Creating countertops underlayment (for tile applications)
- Over plywood substrates (with a cleavage membrane)
- Under ceramic tile, quarry, pavers, or stone
- Over and under Tenon Waterproofing & Crack Isolation Membrane

SAFETY
READ THE SAFETY DATA SHEET (SDS) BEFORE USING THIS PRODUCT. SDS information is available on our website: tccmaterials.com or contact TCC Materials® at 651-688-9116 (7:30 AM to 4:00 PM Central US Time).

CAUTIONS
Read complete cautionary information printed on product container prior to use. This Product Data Sheet has been prepared in good faith on the basis of information available at the time of publication. It is intended to provide users with information about and guidelines for the proper use and application of the covered Tenon® brand product (s) under normal environmental and working conditions. Because each project is different, neither Tenon® nor TCC Materials® can be responsible for the consequences of variations in such conditions, or for unforeseen conditions.

4. TECHNICAL DATA
LEED® Eligibility[1]
- Regional Materials (MR-c4, MR-c5)
- Low-Emitting Materials (IEQ-c4.3)

Packaging
- Floor Mix: 50 lb. (22.7 kg.) bag – Product #105165
- Fast-setting mix with fine sand: 50 lb. (22.7 kg.) bag – Product #110513
- Gray Fine Sand Mix: 50 lb. (22.7 kg.) bag – Product #105136
- Gray blend using ½ fine sand with ½ course sand: 50 lb. (22.7 kg.) bag – Product #105141
- Gray Coarse Sand Mix: 50 lb. (22.7 kg.) bag – Product #105154
- Gray Fast-Setting Mix: 50 lb. (22.7 kg.) bag – Product #105178
- White Fine Sand Mix: 50 lb. (22.7 kg.) bag – Product #100557 (fine sand mix)
- Gray Fine Sand Mix, Special Order): 3,000 lb. (1,361 kg.) bag – Product #103937

Shelf Life
12 months from the date of manufacture when stored in the original, unopened container, away from moisture, under cool, dry conditions and out of direct sunlight.

5. INSTALLATION
Preparation
- Surface must be clean, dry, hard, and free from dirt, loose particles, wax, sealers, curing compounds, grease, paint, efflorescence, and any foreign materials that will inhibit adhesion. Refer to the Tenon technical bulletin on substrate preparation for more information.
- Floors must be structurally sound, free of movement, and dimensionally stable.
- All installations must conform to ANSI A108.01, A108.02, A108.1A & A108.1B.
- Smooth concrete must be scarified to an ICRI Concrete Surface Profile of CSP4 or higher.
- Concrete surface must be brought to a saturated surface dry (SSD) condition with clean potable water. All excess water must be removed.

5. INSTALLATION (cont.)
Preparation (cont.)

- All materials should be stored at 40°F-80°F (4°-27°C) 24 hours prior to installation.

Note: It is the responsibility of the installer/applicator to ensure the suitability of the product for its intended use.

Job Mockups
The manufacturer requires that when its Tenon products are used in any application or as part of any system that includes other manufacturers' products, the contractor and/or design professional shall test all the system components collectively for compatibility, performance and long-term intended use in accordance with pertinent and accepted industry standards prior to any construction. Written documentation of the tests performed shall be satisfactory to the design professional and contractor. Test results must include the means and methods of application, products used, project-specific conditions being addressed, and standardized tests performed for each proposed system or variation.

Mixing

1. Use cool, clean, potable water in the range of 50º-80ºF (10º-27ºC) for mixing. Always use clean tools and mixing containers. When higher physical performance is required, including exterior applications, Tenon Mighty Bond™ additive is recommended in place of water alone and must be diluted 1:1 with water.
2. Add just enough dry mix to the liquid, approximately 2 qt. (1.89 L) of liquid per 50 lb. (22.7 kg.) bag, to produce a dry-pack consistency. Too much liquid will cause the mortar to have reduced strength.
3. Mix thoroughly until lump free. The mix should resemble wet sand used to form sand creations (wet enough so that it doesn't crumble apart, but dry enough to keep its form consistency).
4. The consistency and workability should be such to allow maximum compaction during tamping.
5. Bucket life is approximately one hour (30 minutes for fast-set). Warmer temperatures will reduce the bucket life.

Application
Apply only to surfaces that are frost free and above 40°F (4°C) and below 100°F (38°C) within 24 hours of application and 72 hours thereafter. The thickness should be between ¾" (1.9 cm) and 4" (10 cm) depth for fine or 50/50 blend, and up to 8" (20 cm) for coarse mix, following the recommendations of ANSI 108.1 for the specific intended application. Installation must conform to the current specifications in the TCNA Handbook for Ceramic Tile Installations.

Floors requiring reinforcement:

- When installing mud beds requiring reinforcement, place wire mesh reinforcement according to TCNA method. Placement of wire mesh in the center of the mortar bed is limited to unbonded installations only; reinforcement should not butt against vertical surfaces.

Shower receptors, steam rooms, and wet areas:

- When installing Tile Crete in a shower receptor, steam room or wet areas requiring waterproof membranes, Tile Crete must be a minimum of 1½" (38 mm) thick and tamped and sloped towards drain at ¼" (6 mm) per foot. Wet areas also require a waterproof membrane and flanged drain installed prior to Tile Crete installation. Refer to TCNA B414, TR418 and SR613. Tenon Waterproofing & Crack Isolation Membrane on top of the cured mortar bed greatly reduces mold and mildew growth in the shower floor.
- Consult local building codes, TCNA methods, ordinances, and trade policies for more information on proper installation.

Over wood floors & countertops:

- Install a cleavage membrane (5 mil polyethylene film or waterproofing membrane) before placing Tile Crete.
- Reinforce with metal lath. Place lath and Tile Crete over the membrane at a minimum thickness of ¾" (19 mm).

Concrete floors without reinforcement:

- Apply a slurry bond coat.
- Install Tile Crete at a minimum of ¾" (19 mm) following the recommendations of ANSI A108.1A & B and in accordance with the TCNA installation guidelines.
- Firmly tamp & screed.
- The addition of Tenon Mighty Bond, properly diluted at a 1:1 up to 3:1 ratio with water for interior applications, provides better adhesion to the existing substrate and strength of the mortar bed.

Slabs with moisture vapor emission:

- Consult a design professional on best installation practices including using a non-modified thinset or a slurry of Portland cement and water as a bonding agent.

Refer to:
TCNA (Tile Council of North America) Handbook:
Ceramic Tile Installation
American National Standard Specifications:
Installation of Ceramic Tile

Limitations

- Do not use over gypsum underlayment, particle board, hardwood or parquet flooring.
- Do not overwater. Mix to a dry consistency.
- Maximum depth is 4" (10 cm) for fine or 50/50 blend; 8" (20 cm) maximum depth for coarse mix.

Curing
Standard Tile Crete will obtain a minimum cure in 24-36 hours, depending on the ambient temperatures. Fast-set Tile Crete will obtain a minimum cure in 2-4 hours, depending on the ambient temperatures. As with concrete, the strength increases significantly with age during the first 28 days.

Coverage

- 50 lb. (22.7 kg) bag: Approximately 8 sq. ft. (0.74 m²) at ¾" (19 mm) thickness
- 3,000 lb. (1,361 kg) bag: Approximately 480 sq. ft. (44.59 m²) at ¾" (19 mm) thickness

6. AVAILABILITY

To locate Tenon products in your area, please contact:

Phone: 1.651.688.9116
Website: tccmaterials.com

7. WARRANTY

Seller warrants that its product will conform to and perform in accordance with the product specifications. The foregoing warranty is in lieu of all other warranties, expressed or implied, including, but not limited to those concerning merchantability and fitness for a particular purpose. Because of the difficulty in ascertaining and measuring damages hereunder, it is agreed that Seller's liability to the Buyer shall not exceed the total amount billed and billable to the Buyer for the product hereunder.

8. MAINTENANCE

Not applicable.

9. TECHNICAL SERVICES

Technical Assistance:
Information is available by calling TCC Materials®
(hours 7:30 AM to 4:00 PM CST):

Phone: 1.651.688.9116
Fax: 1.651.688.6164
Web: tccmaterials.com

Technical and Safety Literature:

To acquire technical and safety literature, please visit our website at: tccmaterials.com.

10. FILING SYSTEM

Division 3

[1] Tenon products can contribute to LEED® credits within the Material Resource, (Recycled Content & Regional Materials) andIndoor Environmental Quality (Low Emitting Materials).

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REV 07/25