

Pourable Concrete Patch

1. PRODUCT NAME

Tenon® Pourable Concrete Patch

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® Pourable Concrete Patch is a Portland cement—based, flowable, squeegee—grade, polymer—modified patching and resurfacing mix for interior and exterior horizontal concrete substrates. Easy to use, it corrects defects up to ½ in. (13 mm) on concrete surfaces prior to applying new flooring materials or coatings. Depending on application, Pourable Concrete Patch can also be used as a wearable surface for residential and light duty commercial applications. Meets ASTM C387 "Standard Specification for Packaged, Dry, Combined Materials for Mortar and Concrete" for normal weight concrete.

Features and Benefits

- · Portland cement-based
- Provides a smooth surface
- Applications from \(\frac{1}{2} \) in. (3 mm) to \(\frac{1}{2} \) in. (13 mm)
- · Accepts non-moisture sensitive tile and stone in 24 hours
- · Accepts floor covering sheet goods in 3 days
- Polymer-modified for superior adhesion
- Applied by trowel or stiff-edge blade

Uses

- · Interior or exterior
- Smooth rough or uneven, above, or below grade concrete prior to application of finished flooring
- · Patch to fill seams, holes, and cracks in concrete
- Wear surface for residential and light duty commercial applications

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, M–F, 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

Typical Values • Pourable Concrete Patch	
Mix Ratio (Water to Powder)	3-3½ qt. (2.8-3.3 L) per 50 lb. (22.7 kg)
Working Time	25–35 minutes
Set Time ASTM C191	
Initial Set (hrs:min)	2:00
Final Set (hrs:min)	5:15
Compressive strength ASTM C109 (air cured)	
3 days	2,120 psi (14.6 MPa)
7 days	3,000 psi (20.68 MPa)
28 days	3,500 psi (24.1 MPa)
Tensile Strength ASTM C307	
Average PSI	257 (1.77 MPa)

Greater than: > Greater than or equal to: \ge Less than: < Less than or equal to: \le

Note: Test results obtained under controlled laboratory conditions at 72°F (22°C) and 50% relative humidity. Reasonable variations can occur due to atmospheric and job site conditions.

LEED® Eligibility¹

- Regional Materials (MR-c4, MR-c5)
- Low-Emitting Materials (IEQ-c4.3)

Packaging

Gray: 50 lb. (22.7 kg.) bag (BOM #120672)

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

Powder and water should be acclimated to room temperatures of 50°F–80°F (10°C–27°C) 24 hours prior to installation.

- Concrete must be fully cured (28 days minimum), free of efflorescence, and not subject to hydrostatic pressure or moisture condensation.
- All surfaces must be stable, solid, and structurally sound.
- Remove all unsound concrete, grease, oil, dirt, paint, sealers, curing compounds, waxes, old adhesive residue, gypsum based underlayments, old flooring, and any other foreign materials that will inhibit adhesion. Mechanical removal is recommended, chemicals often serve to drive them deeper into the concrete substrate.
- New slabs should be steel troweled with a fine broom finish.
 Existing slabs may need to be roughened to provide a mechanical bond.
- Maximum bond over a concrete substrate can be achieved by mechanically profiling the surface either by grinding, shot blasting, sand blasting, or scarifying to achieve an ICRI CSP3 to CSP5 standard. Structurally sound concrete that is porous, and has not been troweled smooth and flat may not require mechanical profiling.
- After cleaning and profiling, test for MVER (moisture vapor emission rate, reference ASTM F1869) and concrete substrate's relative humidity (RH, reference ASTM F2170).
 The requirements of the floor covering and floor adhesive manufacturers must be followed with respect to, but not limited to, levels of moisture.
- Repair deep areas, holes, and non—moving cracks with Tenon® Feather Patch[™] Pro or Tenon® Vinyl Concrete Patch prior to application of Pourable Patch and allow curing as recommended for the product.
- Isolate and install a bond breaker, using ¼ in. (6 mm) foam tape or caulking, where vertical surfaces meet new toppings and at all perimeters and sharp corners such as column bases, pedestals, supports, etc.

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

Refer to:

ASTM D4259 Abrading Concrete

ACI 201.1R <u>Guide for Making a Conditions Survey of Concrete in</u> Service

ACI 224.1R93 <u>Causes and Repair of Cracks in Concrete</u> <u>Structure</u>

ICRI 03732 <u>Selecting and Specifying Concrete Surface</u> Preparation for Sealers, Coatings, and Polymer Overlays

Expansion and Control Joints

 Honor all existing expansion joints, control joints, and moving cracks through the Pourable Concrete Patch. Fail ure to do so could result in delamination or cracking of Pourable Concrete Patch.

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. Mix one 50 lb. (22.7 kg) bag at a time.
- 2. Use a ½" drill rated at 300–450 rpm with a square mortar paddle attachment. Using a drill rated higher than 450 rpm can result in entrapping air which could lead to pin holes in the finished patch.
- 3. Mix only the amount that can be applied in 25-35 minutes.
- 4. In a clean 5 gal. container add 3 qt. (2.8 L) of clean, cool, potable water. While operating the drill mixer, slowly add the 50 lb. (22.7 kg) bag of powder to the water until a smooth, lump—free consistency is achieved. Additional water can be added if necessary to achieve a flowable consistency. Total water used should not exceed 3½ qt. (3.3 L). Blending the powder into the water allows for easier mixing.
- 5. Mix completely for approximately 2–3 minutes until lump free. Avoid over watering, over mixing, or moving the mixer up and down during mixing as this will entrap air, lower the strength, and may cause cracking and/or pin-holing.

Note: Elevated temperatures will shorten the working time. Lower temperatures will delay set times.

Application

Apply only to surfaces that are frost free and between $50^{\circ}F-90^{\circ}F$ ($10^{\circ}C-32^{\circ}C$) within 24 hours of application and 72 hours thereafter, and when rain is not expected within 24 hours. For applications outside this range of temperatures, contact TCC Materials.

- Pre-dampen surface to be repaired with water to saturated surface dry (SSD) condition with no standing water remaining just prior to application.
- 2. Use a trowel or stand—up stiff—edge blade to apply the mixture to the desired area. To achieve a smooth finish, apply a light touch with a freshly cleaned, damp application tool.
- Protect new surface from use until material is completely hard and set, approximately 6 hours. Keep wheeled traffic off for a minimum of 24 hours.

Refer to:

RFCI (Resilient Floor Covering Institute publication) MRP:
Addressing Moisture Related Problems Relevant to
Resilient Floor Coverings Installed Over Concrete

TCNA (Tile Council of North America) Handbook: Ceramic Tile Installation

American National Standard Specifications: Installation of Ceramic Tile

Note: When vinyl, wood, or other types of floor coverings are to be installed over Tenon® Pourable Concrete Patch, the requirements of the floor covering manufacturer are to be followed with respect to, but not limited to, levels of moisture.

Curing

- Protect from excessive drying due to temperatures, air movement, and direct sunlight.
- The use of damp curing or the use of curing compounds is not recommended.

Cleaning

Use clean potable water to clean all tools immediately after use. Dried material must be mechanically removed. Use a waste water hardener (e.g. ConglezTM or similar product) for cementitious waste disposal.

Limitations

- Do not use for stamping overlays.
- Do not use a bonding agent, mix with water only.
- Do not install over residual adhesives
- Do not over water, retemper, or add additional additives.
- Do not install over dimensionally unstable substrates such as gypsum, gypsum based patching compounds, particle board, luan, asbestos, or chip board.
- As a wearing surface, best for residential and light commercial applications

Coverage

50 lb. (22.7 kg) bag: Approximately 50 sq. ft. (4.65 m 2) at 1 % in. (3.2 mm) thickness

6. AVAILABILITY

To locate Tenon® products in your area, please contact:

Phone: 1.651.688.9116 Email: info@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.

LEED® is a registered trademark of U.S. Green Building Council.

8. MAINTENANCE

Not applicable.

9. TECHNICAL SERVICES

Technical Assistance:

Information is available by calling TCC Materials® (hours 7:30 AM to 4:00 PM, M–F, CST):

Phone: 1.651.688.9116
Email: info@tccmaterials.com
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) and Indoor Environmental Quality (Low Emitting Materials).



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