

1. PRODUCT NAME

Tenon® Vinyl Concrete Patch

2. MANUFACTURER

Bluestone Products™, a TCC Materials® company
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® Vinyl Concrete Patch is a polymer-modified, Portland cement-based patching compound used to repair minor surface imperfections in concrete. Suitable for interior and exterior applications from feather edge to 2 in. (51 mm) thick per lift. Supports foot traffic in 8-12 hours, wheeled traffic in 48 hours.

Features and Benefits

- Featheredge to 2 in. (51 mm) in thickness
- Polymer-modified for higher bond strength
- Portland-cement based
- High-strength with superior workability for easy application
- Excellent resistance to deicing salts
- Shrinkage compensating

Uses

Repair of:

- Steps, slabs, patios, driveways, curbs, and sidewalks
- Resetting/pointing of brick, block or stone
- Horizontal and vertical concrete surfaces

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 Tenon® Vinyl Concrete Patch | | |
|---|--------|--|
| Mix Ratio (Water to Powder) | (Water | 7-8 pints (3.3-3.8 L) of water per 50 lb. (22.7 kg) powder |
| Working Time @ 70°F (21°C) | | Approximately 30 minutes |
| Set Time ASTM C191 | | |
| Final Set | | Approximately 60 minutes |
| Compressive Strength ASTM C 109 (Air Cured) | | |
| 1 day | | > 4,000 psi (27.6 MPa) |
| 7 days | | > 6,000 psi (41.3 MPa) |
| 28 days | | > 7,000 psi (48.2 MPa) |
| Flexural Strength ASTM C 78 | | |
| 7 days | | > 1,400 psi (9.6 MPa) |
| 28 days | | > 1,850 psi (12.7 MPa) |
| Tensile Strength ASTM C 190 | | |
| 7 days | | > 500 psi (3.4 MPa) |
| 28 days | | > 600 psi (4.1 MPa) |
| Shear Bond Strength ASTM C 882 | | |
| 28 days | | > 1,800 psi (12.4 MPa) |
| Length Change Percent ASTM C 157 | | |
| Air cured | | -0.003% |
| Splitting Tensile ASTM C 496 | | |
| 28 days | | > 450 psi (3.1 MPa) |
| Resistance to Deicing Salts ASTM C672 | | |
| 25 cycles | | 0 visual rating |
| Modulus of Elasticity ASTM C469 | | |
| | | 2.46 x 10 ⁶ |
| Abrasion Resistance ASTM C944 | | |
| 28 days | | 2.3 g loss |

Greater than: > Greater than or equal to: ≥ Less than: < Less than or equal to: ≤ Test results obtained under controlled laboratory conditions. Testing used 7 pt. (3.3 L) water per 50 lb. (22.7 kg) powder. Reasonable variations can occur due to atmospheric and job site conditions.

4. TECHNICAL DATA (Cont.)

LEED® Eligibility¹

- Regional Materials (MR-c5)

Packaging

- 10 lb. (4.5 kg) pail (BOM #127634)
- 50 lb. (22.7 kg) bag (BOM #120681)

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

Acclimate water and powder to room temperatures of 40°F-80°F (4°C-27°C) for a minimum of 24 hours prior to installation. Proper surface repair preparation is crucial to achieving a successful application. All concrete surfaces must be fully cured, structurally sound, and non-flexing.

1. Clean area and remove all unsound concrete, grease, oil, paint, and any other foreign materials that will inhibit performance.
2. Slick or sealed surfaces must be thoroughly roughened to ICRI CSP 3-5. Completely expose and clean all reinforced steel, ensuring a minimum clearance of ¼ in. (19 mm) behind reinforcing steel.
3. Perform reinforcing steel preparation in accordance with International Concrete Repair Institute Technical Guideline No. 03730.
4. Surface should be brought to a saturated surface dry (SSD) condition with clean potable water.
5. For difficult to bond substrates we recommend adding Tenon® Mighty Bond™ in lieu of water to increase bond and adhesive strength (Refer to mixing instructions). The addition of a latex additive will extend the setting time.

Refer to:

ASTM D 4259 [Abrading Concrete](#)

ICRI Guideline 03730 [Surface Preparation Guidelines for Repair of Deteriorated Concrete Resulting from Reinforcing Steel Oxidation](#)

ICRI Guideline 03731 [Selecting Application Methods for the Repair of Concrete Surfaces](#)

ICRI Guideline 03732 [Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings and Polymer Overlays](#)

ACI 201.1R [Guide for Making a Condition Survey of Concrete in Service](#)

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, potable water, clean tools and clean containers.
2. Mix only the amount that can be applied within the 30 minute working time. Warmer temperatures will reduce working time.
3. Always stir the powder into the liquid and mix with a paddle mixer or mechanical batch mixer. Avoid high-speed mechanical mixing which can entrap air into the mixture. Smaller amounts can be mixed by hand.
4. The amounts of water can be modified for various applications. Addition of cold water at high temperatures or warm water at low temperatures will aid in adjusting the mix temperature.
 - » For each 10 lb. (4.5 kg) pail of powder stir dry mix into water beginning with a ratio of approximately 1.4 pt. (0.66 L). If using for vertical applications, start with 1.2 pt. (0.57 L) per 10 lb. (4.5 kg) powder for a stiffer consistency to aid non-sag properties. Add additional liquid sparingly up to a total of 1.6 pt. (0.75 L) per 10 lb. (4.5 kg) powder.
 - » For each 50 lb. (22.7 kg) bag of powder stir dry mix into water beginning with a ratio of approximately 7 pt. (3.3 L). If using for vertical applications, start with 6 pt. (2.8 L) per 50 lb. (22.7 kg) powder for a stiffer consistency to aid non-sag properties. Add additional liquid sparingly up to a total of 8 pt. (3.8 L) per 50 lb. (22.7 kg) powder.
5. Mix for a maximum of 3 minutes to ensure a lump-free, uniform consistency.
6. Adding excess mixing water is not advised, as it will reduce strength, delay set times, and increase potential for shrinkage cracking.
7. When applying over surfaces that are difficult to bond to, such as cutback residue, adhesive residue, or ceramic tile, substitute 50% of the water with Tenon® Mighty Bond concrete bonding additive.

Application

Apply only to surfaces that are frost free and between 50° F-90°F (10°C-32°C) for 24 hours prior to application and 48 hours thereafter. Do not apply in direct sunlight on hot, windy days, or when rain is forecasted within 24 hours.

1. Just prior to application, pre-dampen surface to be repaired with clean water to saturated surface dry (SSD) condition with no standing water remaining. Apply Vinyl Concrete Patch with a steel trowel onto properly prepared surface.
2. To reduce shrinkage and cracking, do not exceed thickness of 2 in. (51 mm) per layer. If a higher build-up is needed, allow a minimum of 24 hours drying time between each lift.
3. Vinyl Concrete Patch may also be extended for placements greater than 2 in. (51 mm) in depth. Pre-blend washed SSD of 3/8 in. (9.5 mm) graded aggregate into Vinyl Cement Patch mix at a ratio of:
 - » 4 lb. (1.8 kg) aggregate per 10 lb. (4.5 kg) pail of powder.
 - » 20 lb. (9 kg) aggregate per 50 lb. (22.7 kg) bag of powder.
4. Clean the surface of the trowel often with water and use a "light touch" when finishing the surface. Do not over trowel. If a textured finish is desired, brush in one direction with a soft-bristled brush or broom while patch is still soft. This product should not be over-troweled or over-worked.
5. Protect the surface from use until patch is completely hard and set. On average, supports foot traffic in 8-12 hours, wheeled traffic in 48 hours depending upon temperatures and humidity.

Curing

Do not wet the surface before the material has reached final set. Maintain a minimum of 40°F (4°C) for 48 hours after application. Product should be air cured unless hot and/or drying winds or low humidity are present. Under such conditions, lightly fog spray.

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. Conglez™ or similar product) for cementitious waste disposal.

Limitations

- Do not add any liquids other than potable water or Tenon® Mighty Bond™ Concrete Bonding Additive to this product.
- Vinyl Concrete Patch is not intended for use as resurfacer.
- Do not over water.
- Do not cover or fill control or expansion joints.
- Do not retemper.
- Do not apply over non-structural light weight concrete.
- Do not apply over concrete cured less than 28 days.

Coverage

- 1 lb. (0.45 kg) covers approximately 1 sq. ft. (0.09 m²) @ 1/8 in. (3 mm).
- 10 lb. (4.5 kg) yields 0.09 cu. ft. (0.0025 m³).
- 50 lb. (22.7 kg) yields 0.45 cu. ft. (0.013 m³).

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.

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.

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

10. FILLING SYSTEM

Division 3 and Division 9

¹Tenon® 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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