

## 1. PRODUCT NAME

Tenon™ Underground Utility Mortar

## 2. MANUFACTURER

Bluestone Products™, a TCC Materials® company  
2025 Centre Pointe Blvd.  
Mendota Heights, MN 55120 USA

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## 3. PRODUCT DESCRIPTION

Tenon™ Underground Utility Mortar is a dry, preblended, air-entrained mortar mix containing Portland cement, hydrated lime, and dried masonry sand formulated for superior bond and outstanding freeze-thaw resistance in all underground precast concrete structure applications. This product meets ASTM C270 and ASTM C1714 requirements.

### Features and Benefits

- Optimum bond with pre-cast concrete
- Excellent freeze-thaw resistance
- Air-entrained, pre-blended mixture
- Meets ASTM C270 Property Specification and ASTM C387

### Uses

- Above or below grade
- Jointing of all types of underground pre-cast concrete utility construction
- Laying concrete brick in manholes and catch-basins

### SAFETY

READ THE SAFETY DATA SHEET (SDS) BEFORE USING THIS PRODUCT. SDS information is available on our website: [tccmaterials.com](http://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

MORTAR PROPERTIES	ASTM C387	ASTM C270
Compressive Strength 28 Days	3780 psi (26 MPa)	5050 psi (34.8 MPa)
Water Demand, lb. / 50 lb. bag	6.69 lb. (3.03 kg)	6.75 lb. (3.06 kg)
Water Demand, gal./ 50 lb. bag	0.81 gal. (3 L)	0.81 gal. (3 L)
Flow. %	113 %	109 %
Air Content %	9.0 %	8.0 %
Yield, ft <sup>2</sup> / 50 lb. bag	0.76	0.70

### LEED® Eligibility<sup>1</sup>

- Regional Materials (MR-c4, MR-c5)

### Packaging

50 lb. (22.7 kg.) bag – Product # 120704

### 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. Product should be stored dry at 40°F–95°F (4°C–35°C).

## 5. INSTALLATION

### Preparation

Proper preparation is crucial to achieving a successful application. Concrete surfaces should be clean, sound, and free from any materials that may inhibit bond such as oil, asphalt, curing compounds, acids, dirt and loose debris.

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.

## Job Mockups (cont.)

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. For best results, use a mechanical batch mixer.
2. Place the desired number of bags in the mixer. Always use full bags only. Do not exceed mixer capacity.
3. Use clean, potable water only. Add approximately .81 gal. (3 L) per 50 lb. (22.7 kg) bag for optimal workability.
4. Mix batch for approximately 5 minutes to a uniform lump free consistency
5. Maintain water and mixing time consistency among batches.
6. Additional water should be added in small increments until the desired consistency is achieved.

## Application

- For concrete pipe connection, ensure that concrete pipe joints are thoroughly cleaned and dry prior to application of Underground Utility Mortar. Pack the mortar into the annular space on the concrete pipe and finish smooth and flush inside while leaving a smooth mortar layer over the exterior connection.
- Lay concrete brick in manholes or catch basins following standard masonry practices.
- Underground Utility Mortar can be used as a parge coat over the brick in the manhole or catch basin.
- Mortar shall be used and placed in final position within 1½ hours after initial mixing or discarded at that time.
- Do not retemper Underground Utility Mortar.

## Limitations

- Do not use when ambient air and surface temperatures are below 40°F (4°C).
- Do not overwater, retemper, or mix with other additives.
- Do not mix more mortar than can be placed in 1–½ hours.

## Curing

No special curing is required.

## Cleaning

Use water to clean all tools immediately after use. Dried material must be mechanically removed.

## Coverage

50 lb. (22.7 kg) bag yields approximately 0.45 cu. ft. (12.7 L) at a flowable consistency.

## 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 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 7

<sup>1</sup> Tenon™ products can contribute to LEED® credits within the Material Resource, (Recycled Content & Regional Materials) and Indoor Environmental Quality (Low Emitting Materials).

LEED® is a registered trademark of U.S. Green Building Council. Data Sheets are subject to change without notice. For the latest revision, check our website at tccmaterials.com



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