

# Set Retarder

#### 1. PRODUCT NAME

Tenon® Set Retarder

# 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® Set Retarder is a ready-to-use liquid admixture that slows the rate of reaction for rapid setting concrete repair products, including:

- Tenon® Commercial DOT Repair
- Tenon<sup>®</sup> Professional Patch 100
- Tenon® Professional Patch 200
- Tenon<sup>®</sup> Rapid Patch<sup>®</sup> Vertical Repair
- Tenon® Rapid Strength Concrete Mix SE
- Tenon® Blend-Pro
- Rapid Patch Multi-Purpose Repair
- Rapid Patch Concrete Repair Mortar

It is intended for use with these products in conditions where warm weather or other situations require extended working time for proper placement and finishing. It meets ASTM C494/C 494M requirements for Type B retarding admixtures. For use with all other mixes contact info@tccmaterials.com to connect with a technical representative.

#### Uses

- High-traffic concrete pavement repairs
- Full depth concrete placements
- · Parking structure repairs
- Bridge deck repairs
- Industrial floor repairs
- Precast concrete repairs

#### **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

This product has been designed to use as a custom retarder for a wide variety of fast setting products. The dosage table in section 5. Mixing has been designed so Set Retarder will provide 2, 2.5, and 3 times longer working time compared to the regular working time of the cementitious product being used. Jobsite trials should be run in order to confirm the amount of Set Retarder to be used under those conditions.

# LEED® Eligibility1

- Regional Materials (MR-c5)
- Low-Emitting Materials (EQ-c14, EQ-c4.3)

# **Packaging**

- 1 gal. (3.78 L) bottle (BOM #130030)
- 5 gal. (18.9 L) pail (BOM #130040)

#### Shelf Life

12 months from the date of manufacture when stored in the original, unopened container, away from moisture, under cool, dry conditions, protected from freezing, and out of direct sunlight. Store in cool dark environment at 40°F-95°F (4°C-35°C).

# 5. INSTALLATION

#### Preparation

Refer to product being used in conjunction with Tenon® Set Retarder for all requirements for surface prep, substrate wetting, slurry coat or any other installation recommendations.

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

These mixing instructions describe how to dose the liquid admixture into the mix water for each product it has been designed for. For specific mixing instructions for the finished product please refer to that product's Technical Data Sheet.

- Determine volume of mix water required for desired consistency based on the cementitious material being used.
- 2. Determine amount of set extension required by referring to dosage table below to determine amount of Set Retarder needed. Subtract an equal volume of mix water from the total water required. Add mix water and Set Retarder to mixer / mixing vessel and mix briefly to incorporate admixture into mix water. Total volume of mix water and admixture should be the same as what is specified on the specific cementitious product technical data sheet.
- 3. Mix product by adding powder to water/admixture according to powder mix instructions.

#### Limitations

- Do not exceed maximum dosage recommendations
- This product slows the rate of reaction, therefore early age strengths published in the cementitious product technical data sheets may not be achieved. However, later age strengths will be equivalent to or greater than indicated. Site specific testing should be performed prior to opening the material to service and opening strengths should be specified by the project engineer.
- Install in accordance with local building codes and applicable ASTM standards.
- Do not allow Portland cement-based materials to come in direct contact with uncoated aluminum.
- Mixing time and water/admixture amounts should be consistent from batch to batch.

# Curing

After placement, follow instructions on product's technical data sheet. Also refer to industry practices for curing cementitious materials.

## Cleaning

Refer to specific product's technical data sheet for cleaning instructions. Hardened cementitious materials can be cleaned from tools using Tenon® Concrete and Mortar Dissolver. Use a waste water hardener (e.g. Conglez™ or similar product) for cementitious waste water disposal.

Cups of Admix Required				
BOM #	Product	Double Set	2.5x Set	Triple Set
100689	Commercial DOT Repair	1.25	1.50	1.75
110735	Commercial DOT Repair	0.75	1.00	1.25
120970	Premium Patch 100	1.25	1.50	2.00
120971	Premium Patch 200	1.50	2.00	2.50
129460	20# Concrete Repair Mortar	0.50	0.75	1.00
129470	50# Concrete Repair Mortar	1.50	2.00	2.50
129440	20# Multipurpose	0.75	1.00	1.25
129450	50# Multipurpose Repair Mortar	2.00	2.50	3.00

# Coverage

Varies based on dosage. See Yield table below.

#### 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, M-F, 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

Tenon® products can contribute to LEED® credits within the Indoor Environmental Quality (Low Emitting Materials).





Mighty Bond<sup>™</sup> is a trademark of TCC Materials<sup>®</sup>

LEED\* is a registered trademark of U.S. Green Building

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