

1. PRODUCT NAME

Tenon[®] Cure & Harden

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[®] Cure & Harden is a clear, water-based silicate-based curing, hardening, and dustproofing concrete sealer. Tenon[®] Cure & Harden penetrates into and reacts chemically within the capillaries of the concrete or masonry surfaces. It is suitable for use on freshly placed and finished concrete and in the renovation of aged concrete.

Features and Benefits

- Aids in curing of finished concrete
- Minimizes shrinkage cracking
- Improves concrete strength development
- Hardens concrete to withstand warehouse and industrial wheel traffic
- Improves abrasion resistance to extend service life
- Non-staining, colorless, non-yellowing
- Ready to use
- Water Based, 0 g/L VOC
- Will not inhibit adhesion of secondary coatings
- Easy to apply with sprayer and/or roller
- Improves moisture retention
- Resists surface staining

Uses

- Above or below grade
- Interior or exterior applications
- All concrete applications
- Fully cured, new or existing concrete applications
- Curing of fresh concrete
- Renovation of aged concrete

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

*ASTM C309 Type 1, Class B on hard –troweled concrete surfaces

Typical Results of Tenon [®] Cure & Harden	
Compressive Strength ASTM C109	16% increase in compression strength at 28 days over untreated Untreated 5,797 psi Cure & Harden 6,898 psi
Moisture Retention ASTM C309*	58% improvement in moisture retention over untreated Untreated 0.12Kg loss/M ² Cure & Harden 0.05Kg loss/M ²
Abrasion Resistance ASTM D4060 Taber Abrasion CS-17 30 minutes	88% increase in abrasion resistance over untreated Untreated 17 g loss (100%) Cure & Harden 2 g loss (12%)
Density	9.17 lbs.
Flash Point	>212°F (> 37°C)
Application Rate	200-500 ft ² /gal
Drying time	60-120 minutes depending on temperature and humidity
VOC Content	0 g/L

Packaging

- 5 gal. pail (18.93 L) - BOM #130050
- 55 gal. drum (208 L) - BOM #130060

Shelf Life

For best use, the recommended shelf life is 18 months. If shelf life is beyond 18 months, please contact your distributor. Store in original labeled container, away from moisture, out of direct sunlight. DO NOT STORE NEAR HEAT OR OPEN FLAME. Keep containers tightly sealed when not in use.

5. INSTALLATION

Preparation

New Concrete

1. Freshly finished concrete surfaces require no surface preparation. Tenon® Cure & Harden will be applied after final finishing in the place of a resin or acrylic curing compound.
2. In areas where form release agents have been used, residue must be removed prior to application.

Existing Concrete (greater than 28 days cure)

1. Remove all dust, dirt, and surface contaminants, ensuring surface is completely dry.
2. The surface must be free of all contaminants that would limit the penetration of Tenon® Cure & Harden.
3. If acid is utilized to remove surface coatings, acid must be neutralized and the surface flushed with water and allowed to dry.
4. A test area should be performed to verify penetration and final surface appearance.

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

- No mixing required, ready to use.
- Do not dilute.

Application

New Concrete

1. Apply promptly after final finishing has occurred and after bleed water has fully receded.
2. Apply when temperatures are between 40° F to 90° F
3. Apply with low pressure sprayer maintaining a wet surface for 30 minutes by continued spraying or brooming excess from low to high areas.
4. After surface has dried, flush with water and use broom or squeegee to remove excess material or impurities that may have been brought to the surface.
5. To improve sheen, dry buff with non-abrasive pad the following day.

Existing Concrete (greater than 28 days cure)

1. Apply when temperatures are between 40° F-90° F
2. Saturate the surface with Tenon® Cure & Harden for 30 minutes. Utilize a low pressure sprayer and broom or squeegee to maintain a wet surface.
3. After initial 30 minutes, allow the surface to start to dry sprinkling the surface with water to aid in penetration.
4. After the surface dries for a second time, flush the surface with water and remove any excess material.
5. If desired penetration has not been achieved, follow step 1 while utilizing a floor buffing machine with a non-abrasive pad to aid in working the Tenon® Cure & Harden into the fully cured concrete surface.

Note: Tenon® Cure & Harden will impact the appearance of concrete and a test area should be performed when architectural appearance is critical. Do not allow Tenon® Cure & Harden to come in contact with any glass, fabric, metal, or painted surfaces. Contaminated surfaces should be immediately be wiped with a water-saturated cloth followed by a dry cloth.

Cleaning

Use water, on tools and equipment. For sprayers, pump the water through the spray equipment to remove residue and prevent clogs. For skin contact, wash thoroughly with soap and warm water.

Limitations

- Spray application will yield best results.
- Rapid drying conditions in exterior applications will greatly reduce effectiveness.
- Application method and surface porosity will affect final appearance. White residue signifies over saturation, or surface reaching maximum hardness.
- Allow 7 days before application of adhesive to treated surface.
- For subsequent coating applications, perform proper surface preparation and consult coating manufacturer for more instructions.
- When used as a curing aid, it is the responsibility of the applicator to adjust curing rate to properly regulate the hydration process of the concrete.
- Keep out of reach of children.

Coverage

The recommended coverage rate for most concrete substrates is 150-800 sq. ft. per gal. Coverage may vary due to porosity, wind, temperatures, and condition of surfaces. For more detailed coverage rates, refer to the chart below.

Approximate Coverage @ 70°F (21°C)	Sq. Ft./Gal.	M ² /L
Hard Troweled Finishes	600-800	16.0-21.4
Broomed or Float Finishes	300-400	8.0-10.7
Rough Finishes	200-300	5.4-8.0
Curing Aid	150-200	4.0-5.4

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

Normal sweeping, dusting, or mopping.

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 9



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REV 10.21

TDS.TN.13005