

1. PRODUCT NAME

Tenon® Shield WB

2. MANUFACTURER

TCC Materials®
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3. PRODUCT DESCRIPTION

Tenon® Shield WB is a spray, roller, or brush applied penetrating silane/siloxane water repellent designed to protect concrete, masonry, brick, stone, stucco, pavers, and retaining wall block from water intrusion. This advanced silicone formulation provides breathable, long-term protection by reducing water absorption, mitigating carbonation, and resisting chloride intrusion to prevent freeze-thaw damage, spalling, efflorescence, and chemical erosion. Will not darken or alter the appearance of properly prepared surfaces. Passes ASTM E514 with 100% reduction in water penetration and leakage and reduces water absorption up to 94%.

Features and Benefits

- Passes ASTM E514
- 100% no leakage
- 94% reduction in water absorption
- Long term protection - Advanced silicone technology
- Mitigates carbonation
- Effective chloride ion screen
- UV stable
- Unaffected by microbiological activity
- Breathable - Water vapor permeable
- Will not darken or alter light reflection of substrate when properly applied to a dry and untreated surface.
- Cold weather application - Apply to 40°F or above. With 1-hour cure will tolerate sub-freezing temperatures with no affect. Substrate should be frost free
- Repels water from penetrating substrate. Most damage to concrete, masonry and stone is due to water entry.
- Water based technology, low odor, easy handling and clean up.
- VOC compliant - Meets all current VOC emission standards for waterproofing, concrete/masonry sealer.

When/Where to Use

- Vertical & horizontal concrete
- Concrete block
- Concrete pavers
- Natural stone
- Stucco
- Brick

4. TECHNICAL DATA

Available Sizes

- 1 gallon container (BOM #115214)
- 5 gallon container (BOM #115213)
- 55 gallon container (BOM #115386)

Coverage

Tenon® Shield WB covers approximately 125 sq. ft. / gal. (3 m²/L), per coat.

Typical Values • Shield WB

Physical State & Appearance	Milky white liquid
pH	9
Odor	Slight
Solids by Weight	10%
Solvent System	Aqueous
Volatile Organic Content - VOC of the Material (SCAQMD 1113)	<50 g/L
Active Ingredients	Silane/Siloxane Emulsion
Density of Liquid Coatings (ASTM D1475)	8.2 lbs. / gal.

Typical Values • Shield WB cont.

Accelerated Weathering - QUV (ASTM G154)	2,000 hours UV-B cycled with condensation - no effect
Accelerated Weathering - Carbon-arc (ASTM G152)	Pass - no effect
Water Penetration & Leakage (ASTM E514)	100% reduction, no staining or leakage
Water Vapor Transmission (ASTM E96)	100%
Resistance to Salt Spray (ASTM B117)	Pass - no effect
Moisture Absorption (ASTM C140)	Reduction compared to control 94%
NCHRP 244 Series II Reduction in Chloride Ion Intrusion	82%

- Smooth Concrete: 150-300 sq. ft./gal (3.6-7.3 m²/L)
- Pavers: 150-300 sq. ft./gal (3.6-7.3 m²/L)
- Retaining Wall Block: 40-100 sq. ft./gal (0.98-2.4 m²/L)
- Concrete Block: 40-100 sq. ft./gal (0.98-2.4 m²/L)
- Exposed Aggregate: 100-200 sq. ft./gal (2.4-4.9 m²/L)
- Bridge Decks/Ramps: 100-200 sq. ft./gal (2.4-4.9 m²/L)

Coverage may vary due to porosity and condition of substrate. Very porous surfaces may require 2 coats, wet on wet.

5. INSTALLATION

Preparation

Read all directions before starting work. Proper surface preparation is crucial to achieving a successful application.

1. Remove loose and deteriorated material, laitance, dirt, dust, oil and any surface contaminants that will inhibit proper bond.

2. Substrate must be clean and free of loose debris, oils, paints, previously applied water repellents or any substance that can interfere with penetration.
3. Surfaces must be clean, dry, and frost-free for a minimum of 24 hrs prior to application.
4. Mask off or protect painted surfaces, metal glass, and other adjacent areas from overspray. No priming is necessary.
5. Repoint loose deteriorating mortar; fill all voids and cracks in mortar.
6. Inspect flashing around all openings, caulking, expansion joints and roof components to determine condition and for evidence of water entry. Material will not prevent water entry through cracks or voids in substrate or other building components.
7. No priming is necessary.

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

Mixing

- Stir until homogenous

Application

Apply when both air and surfaces temperatures are between 50°F-90°F (10°C-32°C). Surfaces should be dry. A test patch is recommended to determine compatibility with the substrate and application coverage rate.

1. Apply with low-pressure sprayer with a wet-fan type spray nozzle, power roller with 1" nap, or brush.
2. On vertical surfaces, apply using a flooding application from the bottom up. Apply evenly and sufficiently to wet the substrate completely with a minimum 6-8 in. (15-20 cm) run-down below the spray pattern.
3. On horizontal surfaces, the liquid sealer should pond on the surface for at least 5 seconds before being absorbed. Roll out any pools that accumulate on the surface after 5 minutes. If any dry areas form before 5 minutes, apply an additional light coat to those dry areas.
4. It is important to spray or roll the surface to evenly spread the sealer. Surface should have a uniform wet-look until the sealer dries.
5. Very porous surfaces may require 2 coats of Salt Barrier WB, wet on wet application. It is better to apply 2 thin coats than 1 heavy coat.
6. When applying to split-face block, be sure the block is dry to allow for good penetration with no run-down. If applied to damp block, the water on the surface may prevent proper penetration which may prevent it from achieving a natural look.

Curing

Protect from moisture and traffic for 8 hours. Material is fully cured in 7 days.

Clean Up

- Clean tools, equipment and adjacent areas with water immediately after application.
- Clean glass, windows, metal, vinyl, and aluminum with mild detergent and water within 72 hours before material can cure.
- Cured material can be removed mechanically.

Limitations

- Ensure adequate air movement to dissipate fumes during application and curing.
- Use safety glasses and gloves during application.
- Do not dilute.
- Do not spray in high winds.
- Always apply a sample to determine suitability to substrate.
- Does not prevent water entry through cracks, penetrations or open joints.
- Not applicable for below-grade waterproofing.
- Not recommended for use on bluestone.
- Do not ingest.
- Avoid breathing mist.
- Avoid contact with skin & eyes.

Safety

READ THE SAFETY DATA SHEET (SDS) BEFORE USING THIS PRODUCT.

SDS information is available on our website: tccmaterials.com

- In case of skin contact, wash thoroughly with soap and water.
- For eye contact, flush immediately with a high volume of water for at least 15 minutes and contact a medical professional
- For respiratory problems, remove person to fresh air.

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, TCC Materials cannot be responsible for the consequences of variations in such conditions, or for unforeseen conditions.

6. AVAILABILITY

To locate Tenon products in your area, please contact:

Shelf Life	12 months in unopened containers.
Storage Conditions	Transport and store in cool, clean, dry conditions in unopened containers. DO NOT FREEZE. This will destroy the Shield WB.
Color	Milky White
KEEP PRODUCT IN CONTAINER FROM FREEZING	
WARNING: INJURIOUS TO EYES	
KEEP OUT OF REACH OF CHILDREN	



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