



TuffCover™ Plus

Cement Based Waterproof Coating

1.01 DESCRIPTION

TuffCover™ Plus is a polymer modified, cement based, waterproofing coating designed to provide water-resistant concrete and masonry substrates. TuffCover™ Plus is designed to waterproof the exterior surface of above and below grade concrete and masonry which resists both positive and negative hydrostatic pressure. When properly applied, TuffCover™ Plus closes the internal voids in the substrate, filling and sealing the pores, while remaining breathable. Please use the correct product grade that complies with VOC regulations as per federal, state, county and city regulations/codes at the place of installation of product.

1.02 USES

- Above And Below Grade
- Before Laying Ceramic Tile Dressings
- Interior and Exterior
- Pools, Brine Tanks, Balconies, Terraces, Bathrooms and Showers
- Retaining Walls, Basements, and Foundations
- Tunnel Walls and Bridges
- Vertical and Overhead
- Water Treatment Plants

1.03 FEATURES

- Waterproofs Interior, Exterior, Above and Below Grade Masonry & Concrete Surfaces.
- Apply To Concrete Block, Brick, Stone, Precast Concrete or Formed Concrete.
- Apply to Both Positive & Negative Side (When Hydrostatic Pressure is Low & Aesthetics are not Important.)
- Protection Against Carbon Dioxide for Concrete Pillars and Joists
- Breathable
- Hides Minor Surface Imperfections and Blemishes in Architectural Concrete

1.04 COLOR

Gray

Additional colors available upon request.

1.05 PACKAGING

50 lbs (22.7 kgs) bags

1.06 COVERAGE

225-450 sqft (5.52-11.04 sqm) per 50 lbs (22.7 kgs) bag per coat

1.07 PREPARATION

The concrete must be sound and free of all foreign material, including form releases, curing agents, oil, efflorescence, grease, laitance or other surface contaminants. Remove form marks and other protrusions to prevent "show through". Form a cove at the footer-wall intersection

point and fill all broken corners of block and breaks in the surface. Repair all surface defects including cracks and voids with **TuffCover™ Plus** mixed to a mortar consistency. Cut back wires a minimum of 3/4" (1.9 cm) and repair with **TuffMend™ 45**. Dampen the surface with clean water immediately before **TuffCover™ Plus** application.

1.08 MIXING

TuffCover™ Plus must be mechanically mixed using a slow speed motor and mixing blade to thoroughly disperse the ingredients. Mix for approximately three minutes. Do not over-mix the material. Pour approximately 1 gallon (3.78 liters) into an empty, clean container and begin slow speed mixing. Slowly add **TuffCover™ Plus** and mixing admixture* (water or Acrylic Bonder) as needed to bring the mixture to a heavy, completely blended pancake batter consistency. Stop mixing and allow the mixture to "fatten" for ten minutes. Re-mix and, if necessary, add more mixing admixture to reduce batter consistency.

1.09 APPLICATION

Pre-dampen the substrate with clean, potable water before any application. All applications should carry down to and over the footer, forming a cove at the walls-footer intersection. Apply two uniform applications of **TuffCover™ Plus**, each application at approximately 1-2 lbs/sqy (0.11-0.22 lbs/sqm), allowing 24 hours between applications. Make sure both applications carry down to and over the footer, forming a 1 1/2" (3.8 cm) cove at the junction of walls and footers

Hand Brush: Apply using a 6" (15.24 cm) cement masons brush. Load bristles and lay on a heavy coat using long, smooth horizontal strokes. Apply sufficient material to fill voids. Final strokes should all be in one direction to produce an even texture and finish. Allow first coat to dry for 12 to 24 hours before applying a finish coat.

Push Broom: Use a five-gallon pail or wide mount tub to hold product. Dip a 10" (25.4 cm) , Tampico bristle push broom into product mix just enough to load the bristles. Apply a heavy coat using long, even horizontal strokes. Apply sufficient material to fill all voids. Lift the brush at the end of each stroke. Final strokes should all be in one direction to produce an even texture & finish. Do not over-brush. Allow the first coat to dry for 12 to 24 hours before applying a finish coat.

Spray: Use heavy-duty spray equipment capable of spraying cement-based products or mastics.

Trowel: The use of trowel applications is required in some severe water pressure situations.

1.10 CLEAN UP

Tools and Equipment: Flush and clean with water immediately after use, before **TuffCover™ Plus** hardens.

1.11 STORAGE AND SHELF LIFE

The material should be stored between 40–95°F (4–35°C) in a cool, dry area away from direct sunlight. The shelf life of properly stored, unopened bags is 12 months from the date of manufacture. An excessive temperature differential and/or high humidity can shorten the shelf life expectancy.

1.12 LIMITATIONS

Do not retemper after initial mixing. Do not add other types of cement or additives to this product. **TuffCover™ Plus** is a fast setting product, so mixing equipment should be cleaned with water as soon as possible. Do not allow to freeze until the material has reached a minimum of 1000 psi compressive strength.

In adverse temperatures, follow ACI recommendations for hot/cold weather concreting practices. Use only potable water for mixing. Minimum surface and ambient temperature of 45°F (8°C) and rising is required at the time of application. For optimum results, condition material to between 65°F (19°C) and 85°F (30°C).

1.13 CAUTION

Contains Portland Cement and sand. Cement will cause irritation. Avoid contact. A dust respirator, safety goggles, and rubber gloves are recommended. Avoid prolonged contact with clothing. In case of contact with eyes, immediately flush with water for at least 15 minutes. Get prompt medical attention. Do not wear contact lenses when working with this product. DO NOT take internally. Keep out of reach of children. Avoid hazards by following all precautions found in the Safety Data Sheet (SDS), product labels, and technical literature. Please read this information prior to using the product.

READ SDS PRIOR TO USING PRODUCT. KEEP OUT OF THE REACH OF CHILDREN.

Please read all information in the General & Safety Guidelines, Technical Data Sheets, Guide Specifications and Safety Data Sheets (SDS) before applying material. PSI Products are for "Professional Use Only" and preferably applied by professionals who have prior experience with the PSI Products or have undergone training in application of PSI Products. Published technical data and instructions are subject to change without notice. Contact your local PSI representative or visit our website for current technical data, instructions, and project specific recommendations.

LIMITED WARRANTY

PSI warrants its products to be free of manufacturing defects and that they will meet PSI current published physical and chemical properties. Seller's sole responsibility shall be to replace that portion of the product which proves to be defective. There are no other warranties by PSI of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. PSI shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. PSI shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. PSI reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user's responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and PSI makes no claim that these tests or any other tests, accurately represent all environments.

1.14 PHYSICALS (Physical Properties @ 72°F and 50% relative humidity)

Compressive Strength (ASTM C-109)

7 day	3900 psi (26.89 MPa)
28 days	6000 psi (41.37 MPa)

Tensile Strength (ASTM C-190)

14 days	390 psi (3.69 MPa)
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Bond Strength (ASTM C-882)

14 days	400 psi (2.56 MPa)
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Initial Set (ASTM C-266)	12 min
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Final Set (ASTM C-266)	90 min
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Water Absorption by Weight (ASTM C-67)	3%
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Positive Resistance to Hydrostatic Pressure	750 hrs
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Negative Resistance to Hydrostatic Pressure (CRD C-48, modified)	650 hrs
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Abrasion resistance (Fed. Spec TT-P-141)	Passed
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Modulus of Elasticity (ASTM C-469)	2.75x10 ⁶ psi (18960 MPa)
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Freeze/Thaw Resistance (300 cycles) (ASTM C-666)	No Change
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Flexural Strength (ASTM C-348)	
7 days	350 psi (2.04 MPa)
28 days	1,000 psi (6.89 MPa)

Impact Strength (Fed. Spec TT-P-0035)	No Chipping
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Hardness (Fed. Spec TT-P-0035) 21 days	50
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Fungus Resistance (Fed. Spec TT-P-29B)	No Growth Noted
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Permeance (ASTM E-96)	12 (0.10873)
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