



B-TUFF® LITH

Premium Lithium-Silicate Sealer, Hardener & Densifier Concrete

1.01 DESCRIPTION

B-Tuff® Lith is the premium hardener, densifier, and sealer for concrete surfaces. This penetrating lithium silicate treatment reacts with the concrete to produce insoluble, calcium-silicate hydrate within the concrete pores. **B-Tuff® Lith** is the best choice for hardening, sealing, densifying freshly placed concrete and for final application to diamond polished concrete, including dyed, stained or colored diamond polished concrete. 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

- Bottling plants
- Distribution centers and retail stores
- Food processing plant., dairies, breweries, food locker
- Heavy use concrete
- Indoor mall
- Office complexes
- Parking garages
- Receiving areas
- Restaurants
- Schools
- Warehouses

1.03 FEATURES

- Breathable and UV Stable
- Complies with USDA Requirements for Incidental Food Contact
- Cures Quickly
- Densifies, Strengthens, Seals and Dustproofs
- Does Not Require Rinsing or Flushing with Water Following Product Application
- Hardens and Increases the Abrasion, Impact and Wear Resistance of Volume Use Concrete Floors
- Improves Resistance To Acids, Alkalies, Salts, Foods, Fats, Oils, Greases
- Improves the Adhesion of Subsequently Applied Line Stripes, Paints, and Coatings
- Increases Floor Surface Light Reflectivity, Thereby Increasing Overall Interior Brightness
- Opened to Traffic within One Hour of Treatment.
- Overall Performance Surpasses that of Conventional Membrane Forming Acrylic Cure and Sealers
- Provides Fresh Floor Protection From Stains and Minor Abrasion from New Construction Traffic
- Provides Fresh Floor Protection From Stains and Minor Abrasion from New Construction Traffic
- Provides Permanent Protection to the Depth of Penetration
- Treated Surfaces are "No Waxing" Easy to Maintain
- Voc Compliant. Non-Flammable. Non-Toxic
- Will Not Yellow, Discolor, Peel or Flake

1.04 SUBSTRATES

Concrete: New & Old; Most Masonry Surfaces; Architectural Concrete; Warehouse/Manufacturing Facilities; Arenas; Vertical Concrete Surfaces, Columns, Concrete Monuments

1.05 PACKAGING

1 gallon (3.78 liters) can
5 gallon (18.9 liters) pail
55 gallon (208 liters) drum

1.06 COLOR

Clear

1.07 COVERAGE

Coverage rates will vary with concrete porosity.

Fresh, Uncured, Burnished Concrete: 800-1000 sqft/gallon 19.74-24.54 sqm/liters

Existing Steel Troweled Concrete: 400-500 sqft/gallon (9.81-12.27 sqm/liters)

Existing Float Finished Concrete: 250-350 sqft/gallon (6.14-8.59 sqft/gallon)

1.08 PREPARATION

Surfaces to be treated must be clean and free from dirt, dust, paint, residual wax or resin curing compounds, bondbreaker, sealers, and standing water. For existing concrete surfaces, it is recommended that floors be cleaned using PSI's biodegradable floor cleaner & stripper, **B-Tuff® Clean**, and a scrubbing machine with stiff nylon bristles. A dilution rate of 1 part **B-Tuff® Clean** to 5 parts water is generally sufficient.

1.09 MIXING

B-Tuff® Lith is ready to use. Do not dilute.

1.10 APPLICATION

Existing Concrete (old): **B-Tuff® Lith** may be applied to existing, cured concrete of any age. The surface must be clean and sound. Mechanically remove any surface laitance and patch or fix cracks and damaged areas. Remove all membrane-forming curing compounds, sealers, coatings, paint, oil, grease, dirt, dust, and other containments. It is recommended to thoroughly clean the surface with a black scrubbing pad (light

abrasion) and a neutral pH detergent. Etching of the surface with an acidic solution is NOT recommended, because it requires a thorough rinsing process using a neutral pH cleaner to effectively neutralize the entire surface (if not properly neutralized, the pH condition may cause whitening). For best results, clean the surface by sanding the floor with a 60-100 grit sanding screen or diamond abrasive pad. Remove dust and residue with a ride-on or walk-behind "scrubber" utilizing water or broom, then water rinse and squeegee surface dry. Use a low pressure or HVLP sprayer to apply the TuffLith™ to form an even, consistent, monolithic glistening sheen and to ensure complete saturation of the surface. Apply enough **B-Tuff® Lith** to keep the surface wet for 20 minutes. Allow the surface to dry.

Freshly Placed Concrete: After final finishing, apply **B-Tuff® Lith** with a quality low-pressure sprayer with a fan tip. Uniformly spread the **B-Tuff® Lith** with a soft broom or microfiber applicator to thoroughly coat the concrete eliminating any puddles or excess. Apply enough material to keep the surface wet for 15-20 minutes. Apply additional **B-Tuff® Lith** to porous areas that dry quickly. Any excess **B-Tuff® Lith** that dries on the surface will appear as a dry powder residue and can be removed with a stiff broom, power sweeper, or floor scrubbing machine.

Final Results: The floor is ready for traffic and use when dry. Typical drying time is 1-2 hours. Treated surfaces will exhibit a slight satin sheen and reduced water absorption. Maximum strength and resistance will develop over 7 days. The surface will increase its hardness and durability and its sheen over time - exhibiting a satin gloss look or a satin gloss look with general maintenance. If an immediate, enhanced satin gloss finish (semi-polished reflectivity) is desired for light industrial applications, and/or commercial/retail installations, the following procedure to achieve an enhanced satin gloss sheen is recommended (see optional topcoat application)

Optional topcoat: For an increased immediate shine, water repellency, chemical and stain resistance, clean floor thoroughly, apply an additional light top-coat of **B-Tuff® Lith** (topcoat, dust-proofer, hardener, sealer and densifier with salt protection). Allow the **B-Tuff® Lith Top Coat** to dry overnight and then burnish with a high-speed propane buffer equipped with black pad, followed by a red pad. Burnishing with a black pad followed by a red pad will increase reflectivity on smooth surfaces more quickly. Second applications are rarely needed; however, if the concrete is very porous or if a quicker sheen result is desired, apply a second application with the following procedure: Lightly mist the surface with **B-Tuff® Lith Top Coat** then spread evenly with a lamb's wool applicator or a soft broom, and let dry.

1.11 CLEANUP

Tools and Equipment: Flush and clean with water immediately after use. Use PSI's **Solvent 100** or other cleaning solvents for sprayers to remove cured or residual material.

1.12 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 containers is 24 months from the date of manufacture. An excessive temperature differential and/or high humidity can shorten

the shelf life expectancy.

1.13 LIMITATIONS

- DO NOT place at temperatures below 40°F (5°C) unless special provisions are followed.
- Do not dilute. Wear protective gloves and goggles. Avoid prolonged skin contact.
- Do not use on latex or epoxy polymer-modified concrete.
- Do not use on concrete previously treated with wax or resin containing cures, sealers or bondbreaker compounds without removal.
- Apply at substrate temperatures above 40°F (4°C) and below 100°F (38°C).
- Do not apply in direct sunlight. Best results are obtained when **B-Tuff® Lith** is applied in the shade or at oblique sun angles (morning or early evening).
- Avoid contact with glass, aluminum, and steel. If exposure occurs, immediately flush with water. Failure to do so may result in permanent surface discoloration.
- Before using on dyed, stained or colored concrete (diamond polished or unpolished), contact PSI for specific procedures required. Incorrect application procedures could result in unacceptable discoloration of the concrete surface.
- Application over acid stained concrete requires the surface to be neutralized, thoroughly rinsed and allowed to adequately dry prior to application.

READ SDS PRIOR TO USING PRODUCT. FOR PROFESSIONAL USE ONLY.KEEP OUT OF REACH OF CHILDREN.MADE IN THE USA.

PHYSICALS	
pH	11
Specific Gravity	1.11
VOC Content	0 g/l
Freezing Point	32°F (0°C)
Flash Point	N/A
Weight/Gallon	9.2 lbs (4.17 kgs)
Odor	None
USDA Accepted for Indirect Food Contact	



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 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.

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