



T-SHIELD® BG-100 (FORMERLY TERRA-SHIELD BG-100)

A Two Component, Solvent Free, Liquid-Applied Membrane Applied at Any Thickness

1.01 DESCRIPTION

T-Shield® BG-100 is a two component, solvent free, high solids, low odor, liquid applied, bitumen modified, coal-tar free, polyurethane-waterproofing membrane. Please use the correct product grade that complies with VOC regulations as per federal, state, statutory bodies, county and city regulations/codes at the place of installation of product.

1.02 FEATURES

- Apply at Any Thickness
- Fast Curing
- Labor Saving
- Low Odor
- Solvent Free
- User Friendly

1.03 USES

- Between Slabs
- Foundation Walls
- Planters
- Tunnels

1.04 COLOR

Side-A black: Side-B red

1.05 PACKAGING

10-gallon kit: 5 gallons (18.9 liters) pail of Side-A black liquid 5 gallons (18.9 liters) pail of Side-B red liquid

100-gallon kit: 55 gallon drum – net fill 50 gallons (189 liters) of Side-A black liquid and 55-gallon drum – net fill 50 gallons (189 liters) of Side-B red liquid.

1.06 SURFACE PREPARATION

Refer to General and Safety Guidelines for complete information. Concrete surfaces require a medium sandpaper finish equal to or greater than an ICRI CSP #3. Surface preparation may be completed by shotblasting or the use of Poly-Tuff Profile and Etch cleaner. Peel and adhesion tests are recommended. Install a 100-200 sqft (9.30-18.58 sqm) mock up of the system to be installed and approve for actual coverage rates and functionality before proceeding.

1.07 PRIMING

Prime surface as required with Enviro-Grip™ EP#2(SC), #1 (mixture of Side-A & Side-B) or Enviro-Grip™ PUR#555 at a rate of 1 gallon per 300 sqft (0.14 liters/sqm) or 300 sqft/gallon. Apply using a brush or phenolic core roller. This will result in 3 dry mil (76 microns) of coating. Existing urethane-coated surfaces should be primed with Enviro-Grip™ PUR#555. Rough and pin-holed concrete surfaces may require more primer. Discovery of these issues is generally revealed in the mock up. See the Tech-Note Section of the Poly-Tuff Systems International (PSI) website. Do not allow primer to puddle, dry roll excess primer with a dry nap roller to pick up excess primer in puddles and overlaps.

1.07 MIXING

The volume mixing ratio is 1 part Side-A black liquid to 1 part Side-B red liquid (1A:1B).

T-Shield® BG-100 Side-A and Side-B should be thoroughly mixed individually prior to combining to ensure a homogeneous material. Add the T-Shield® BG-100 Side-B to the T-Shield® BG-100 Side-A and thoroughly mix using a mechanical mixer at slow speed or at least 5 minutes, if mixed by hand. Use care not to allow the entrapment of air into the mixture. Mix no more material than can be used within 20 minutes.

1.08 JOINTS, CRACKS, AND FLASHING

Apply T-Shield® BG-100 overall primed joints and cracks. Bridge the joints and cracks with 3 inch (7.6 cm) Polyester Tape or polyurethane foam, pushing it into the sealant with a trowel. Over reinforcement tape apply a thin coat of T-Shield® BG-100 and smooth onto adjacent surface. Optionally, in lieu of 3 coursing laps and joints, Super-Seal™ Tape may be applied over all primed concrete at laps, joints and cracks.

APPLICATION

2.01 APPLICATION BASICS

For best results use a brush, squeegee or trowel. Airless sprayer or phenolic-resin-core roller may be used but extra care should be taken not to cause air bubbles.

Apply T-Shield® BG-100 evenly over the primed surface at 64 mil thickness (100 microns) which correspond to 4 gallons/100 sqft (1.63 liters/sqm) or 25 sqft/gallon.

Primer is optional on new plywood.

2.02 CURING

Allow coating to cure a minimum of 1-2 hours before proceeding to subsequent coats. Subsequent coats may be applied immediately after the T-Shield® BG-100 cure and support the weight. Do not allow more than six hours between coats.

2.03 EQUIPMENT CLEANUP

Equipment should be cleaned with an environmentally-safe solvent, as permitted under local regulations, immediately after use.

2.04 SHELF LIFE AND STORAGE

T-Shield® BG-100 has a shelf life of 12 months from date of manufacture in original, factory-sealed containers when stored indoors at a

temperature between 60-95°F (15-35°C).

2.05 LIMITATIONS

- Surfaces must be dry, clean and free of foreign matter.
- Not UV stable
- Can not withstand direct wear or abrasion.
- Containers that have been opened must be used as soon as possible.
- Do not dilute under any circumstance.

The following conditions must not be coated with PSI deck coating systems or products:

1) On grade or below grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unvented metal pan, suspended pool, swimming pool decks, or areas where hydrostatic pressure is or may be present, without the use of Enviro-Grip™ 404FC primer and asphalt surfaces, asphalt overlays without the express written consent of PSI. PSI Deck Coating is not recommended over

magnesite, gypsum lightweight and where chained or studded tires may be used.

2) Concrete must exhibit 3000 psi minimum strength. An ICRI CSP 2-3 surface or greater is required for concrete surfaces to be coated.

3) New concrete must be cured for 28 days unless otherwise approved by PSI in writing. New surfaces to be coated must be trowel finished in compliance with the American Concrete Institute (except that hand troweling is not required), followed by a fine hair brooming, left free of loose particles, and shall be without ridges, projections, voids and concrete droppings that would be mechanically detrimental to coating application or function. Light broom finished concrete should be power-washed before coating application.

4) Concrete cleaning (see General and Safety Guidelines). Surface preparation may be completed by shotblasting or the use of Poly-Tuff Profile and Etch (PE) cleaner. Peel and adhesion tests are recommended.

WARNING: This product contains isocyanates.

TECHNICAL DATA	
Terra-Shield® BG-100 Vertical. Based on draw down film.	
Pot Life @ 75°F (24°C) 50%RH	25-35 Minutes
Hardness, ASTM D-2240 Shore A	
With Fabric	48 ± 5
Without Fabric	13 ± 2
Tear Resistance, Die C, ASTM D-624	
With Fabric	150 ± 15 pli (26.29 ± 2.6 kN/m)
Without Fabric	51 ± 5 pli (8.94 ± 0.8 kN/m)
Tensile Strength, ASTM D-412	
With Fabric	210 ± 20 psi (1.45 ± 0.14 MPa)
Without Fabric	175 ± 10 psi (1.21 ± 0.14 MPa)
Ultimate Elongation, ASTM D-412	
With Fabric	60 ± 6%
Without Fabric	410 ± 40%
Specific Gravity	Side-A: 1.02 ± 0.1 Side-B: 1.01 ± 0.1
Total Solids by Weight, ASTM D-2369 Combined	91 + 2%
Total Solids by Volume, ASTM D-2697 Combined	89.8 + 2%
Viscosity at 75°F (24°C)	Side-A: 800 ± 200 cps Side-B: 1100 ± 200 cps
Volatile Organic Compounds ASTM D-2369-81, Combined	<0.83 lbs/ gal (< 100 gm / liter)

TECHNICAL DATA	
Terra-Shield® BG-100 Horizontal. Based on draw down film.	
Pot Life @ 75°F (24°C) 50%RH	25-35 Minutes
Hardness, ASTM D-2240 Shore A	
With Fabric	63 ± 5
Without Fabric	12 ± 2
Tear Resistance, Die C, ASTM D-624	
With Fabric	160 ± 15 pli (28.04 ± 2.6 kN/m)
Without Fabric	16.4 ± 3 pli (2.94 ± 0.5 kN/m)
Tensile Strength, ASTM D-412	
With Fabric	214 ± 20 psi (1.48 ± 0.14 MPa)
Without Fabric	116 ± 10 psi (2.24 ± 0.07 MPa)
Ultimate Elongation, ASTM D-412	
With Fabric	54 ± 10%
Without Fabric	430 ± 40%
Specific Gravity	Side-A: 1.02 ± 0.1 Side-B: 1.01 ± 0.1
Total Solids by Weight, ASTM D-2369 Combined	91 + 2%
Total Solids by Volume, ASTM D-2697 Combined	89.8 + 2%
Viscosity at 75°F (24°C)	Side-A: 800 ± 200 cps Side-B: 1100 ± 200 cps
Volatile Organic Compounds ASTM D-2369-81, Combined	<0.83 lbs/ gal (< 100 gm / liter)

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.

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