



# TERRA-SHIELD® BG-100

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

## 1.01 DESCRIPTION

Terra-Shield® BG-100 is a two-component, solvent-free, high-solids, low-odor, liquid-applied, bitumen-modified, coal-tar free, polyurethane waterproofing membrane. Be sure to use the right 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

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

## 1.03 TYPICAL USES

- Planters
- Tunnels
- Between Slabs
- Foundation Walls

## 1.04 COLOR

Part-A black: Part-B red

## 1.05 PACKAGING

10-gallon kit: One 5 gallons (18.9 liter) pail of Part-A black liquid  
One 5 gallons (18.9 liter) pail of Part-B red liquid  
100-gallon kit: One 55 gallon drum – net fill 50 gallons (189 liters)  
of Part-A black liquid.  
One 55-gallon drum – net fill 50 gallons (189 liters)  
of Part-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 aesthetics, color, texture, actual coverage rates and functionality before proceeding.

## 1.07 PRIMING

Prime surface as required with Enviro-Grip™ EP#2(SC), #1 (mixture of Part-A & Part-B) or Enviro-Grip™ PUR#555 at a rate of 1 gallon per 300 sqft (0.14 liters/m<sup>2</sup>) 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.

## 1.08 MIXING

The volume mixing ratio is 1 part Part- A black liquid to 1 part Part-B red liquid.

Terra-Shield® BG-100 Part-A and Part- B should be thoroughly mixed individually prior to combining to ensure a homogeneous material. Add the Terra-Shield® BG-100 Part-B to the Terra-Shield® BG-100 Part-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.

## 1.09 JOINTS, CRACKS, AND FLASHING

Apply Terra-Shield® BG-100 overall primed joints and cracks. Bridge the joints and cracks with 3 inch (7.6 cm) Polyester Tape, pushing it into the sealant with a trowel. Over reinforcement tape apply a thin coat of Terra-Shield® BG-100 and smooth onto adjacent surface.

## 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. Primer is optional on new plywood.

Apply Terra-Shield® BG-100 evenly over the primed surface at 64 mil thickness (100 microns) which correspond to 4 gallons/100 sqft (1.63 liters/m<sup>2</sup>).

### 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 Terra-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 STORAGE

Terra-Shield® BG-100 has a shelf life of one (1) year from date of manufacture when stored indoors at a temperature between 60°F to 95°F (15°C to 35°C) in the original factory-sealed containers.

## 2.05 LIMITATIONS

- Surfaces must be dry, clean and free of foreign matter.

- Not UV stable.
- Cannot 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: On grade or below grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unvented metal pans, suspended pool decks, swimming pools, magnesite, light weight concrete, asphalt, surfaces and asphalt overlays.

**WARNING: This product contains isocyanates.**

<b>TECHNICAL DATA</b>	
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	
With Fabric	48 ± 5 Shore A
Without Fabric	13 ± 2 Shore A
Tear Resistance, Die C, ASTM D-624	
With Fabric	150 ± 15 pli
	26.29 ± 2.6 kNm
Without Fabric	51 ± 5 pli
	8.94 ± 0.8 kNm
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	
Part-A	1.02 ± 0.1
Part-B	1.01 ± 0.1
Total Solids by Weight, ASTM D-2369	
Combined	91%
Total Solids by Volume, ASTM D-2697	
Combined	89.8%
Viscosity at 75°F (24°C)	
Part-A	800 ± 200 cps
Part-B	1100 ± 200 cps
Volatile Organic Compounds	
ASTM D-2369-81, Combined	<0.83 lbs/ gal < 100 gm / liter

<b>TECHNICAL DATA</b>	
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	
With Fabric	63 ± 5 Shore A
Without Fabric	12 ± 2 Shore A
Tear Resistance, Die C, ASTM D-624	
With Fabric	160 ± 20 pli
	28.04 ± 3 kNm
Without Fabric	16.4 ± 3 pli
	2.9 ± 0.5 kNm
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	
Part-A	1.02 ± 0.1
Part-B	1.01 ± 0.1
Total Solids by Weight, ASTM D-2369	
Combined	91%
Total Solids by Volume, ASTM D-2697	
Combined	89.8%
Viscosity at 75°F (24°C)	
Part-A	800 ± 200 cps
Part-B	1100 ± 200 cps
Volatile Organic Compounds	
ASTM D-2369-81, Combined	<0.83 lbs/ gal < 100 gm / liter

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