



## FREEDOMTUFF® PRODUCT INFORMATION BULLETIN

**FREEDOMTUFF® GUARDIANGREEN™** is an integrative group of coatings that utilizes an epoxy primer, FreedomTuff® 2190 (use FreedomTuff® 2550-FR for fire rating, Class A) a two-component instant setting seamless spray applied membrane that provides an elastomeric waterproof coating with a theoretical dry film thickness 144 mils± (3657.6± microns). Its 100% solids, solvent free and odorless, applied on vertical and horizontal surfaces forming a continuous membrane that is primarily used on concrete surfaces for garden and green roofs. The GuardianDeck is available with a 30-year leak free warranty if preapproved in writing prior to the start of the project by Freedom® Chemical Corp, and with an independent third-party inspection service, hired by owner.

### ADVANTAGES

- ✦ Can withstand constant immersion in water
- ✦ Chemical resistance – Excellent
- ✦ Fire ratings E84-17 and E108 Class A
- ✦ No bitumen
- ✦ No clamping rings
- ✦ No detailing sheets
- ✦ No fabric reinforcement
- ✦ No hot kettles or open flames
- ✦ No noxious odors
- ✦ No protection board required
- ✦ No root barrier required
- ✦ No seams
- ✦ No surface flashings
- ✦ No termination bars
- ✦ No VOC restrictions
- ✦ System can be applied at zero pitch
- ✦ Tenacious adhesion to most construction materials
- ✦ USGBC LEED, EQ Credit 4.2 AND 4.3: Low-emitting VOC Compliant Materials

### USES

- ✦ Green Roofs and Planters

### PROFESSIONAL USE ONLY

Read and understand all the information contained in the Product Information Bulletin's, Specifications, SDS's and product labels prior to starting any project. Nothing contained in any of Freedom® Chemical Corporation's materials relieves the end user of the obligation to read and follow the warnings and instructions for each of Freedom® Chemical Corporation's products.

### PREPARATION

Do not place coating over metal pan decks vented or unvented, split slab membranes, or other locations containing trapped moisture without prior written approval from Freedom® Chemical Corporation.

Concrete should be cured for 28 days (less than 28 days a Moisture Vapor Reducing primer maybe required) prior to product application and have at least 3000 psi compressive and 220 psi tensile strength.

Surface preparation is the essential first stage treatment of a substrate before the application of any coating. The performance of a coating is significantly influenced by its ability to adhere properly to the substrate material. It is generally established that correct surface preparation is the most important factor affecting the total success of surface treatment. Surfaces will be clean, dry, and sound, the presence of even small amounts of surface contaminants, dust, efflorescence, laitance, salts, curing compounds, dirt, oil, form release agents, and other foreign matter

can physically impair and prevent coating adhesion to the substrate.

Shot Blast concrete between CSP 3 - 7.

Grinding is permitted only in areas that are inaccessible to shot blasting equipment.

### COVERAGE RATE

Freedom® Chemical Corporation's coverage rates for all products are approximate and vary based on type of substrate, substrate porosity, roughness and size of broadcast aggregate.

### PACKAGING

See individual Product Information Bulletin.

### PRIMER

Select appropriate primer from individual Product Information Bulletin's. FreedomTuff® primer is required on all substrates, except on properly prepared steel (immersion requires primer).

### MIXING

See Product Information Bulletin's.

Do not mix partial containers of multi-component materials.

Do not dilute under any circumstances.

### APPLICATION

Throughout the application the sanded surface must be clean and dry.

Insure that the substrate and outside air temperature is between 40° F (4.4° C) and 104° F (40° C) at least 6° (-14.44° C) above the dew point and rising.

**STEP ONE:** The substrate may require more than one coat of FreedomTuff® primer. After selection of primer, mix and immediately pour primer onto the substrate at a rate of 100 to 200 square feet per gallon (9.29030m<sup>2</sup> to 18.5806m<sup>2</sup> per liter) in enough quantity to obtain a minimum theoretical dry film thickness of 8 mils (203.2 microns) per coat.

Apply coating over primer within eighteen (18) hours, if not coated within the time allotted, contact Freedom® Chemical Corporation.

Do not apply more primer to substrate than can be coated with FreedomTuff® 2190 within 18 hours of application. If primer is not coated within the allotted time, sand and re-apply primer.

For optimum results proceed with application while air and substrate

temperatures are between 32° F (0° C) and 104° F (40° C) 6° (-14.44° C) above the dew point and rising.

Prior to application of FreedomTuff® 2190 precondition both Part-A and Part-B to 75° F (23.88° C) - 80° F (26.66° C) before applying.

Fit Part-A with a desiccant drying device.

Apply FreedomTuff® 2190 using a plural component, high pressure 1:1 ratio heated, spray equipment.

(OPTIONAL) Use FreedomTuff® 2550-FR for fire rating.

Proportioner Conditions:

- Capacity minimum 20 lbs. per minute
- Static pressure 2800 – 3000psi
- Spraying pressure 2500psi minimum
- Pressure balance 100 variance desirable
- 300 psi variance maximum
- Temperatures preheaters & hose 165° F (73.8889° C) each

STEP TWO: Spray apply FreedomTuff® 2190 at a minimum of 9 gallons (34.0687 liters) per 100 square feet (9.290 m<sup>2</sup>) to the substrate, to achieve a theoretical dry film thickness of 144 dry mils (3657.6± microns) over the entire surface.

When FreedomTuff® 2190 is applied in sections, each application must overlap the previous one within 0 – 6 hours by a minimum six (6") to a neat straight line.

FreedomTuff® 2190 should be sprayed in a smooth pattern, to establish uniform thickness and appearance (crosshatch pattern).

STEP THREE: (OPTIONAL AESTHETICS') The FreedomTuff® 4000 is designed for exposed areas and must be applied within 0 - 6 hours of spraying FreedomTuff® 2190. FreedomTuff® 4000 in one coat at a rate of 1 gallon (3.7854 liters) per 100 square feet per gallon (9.290 m<sup>2</sup>) or in enough quantity to obtain a minimum theoretical dry film thickness of 16 mils (304.79 microns) to achieve a desired color.

Apply FreedomTuff® 4000 on horizontal and vertical surfaces, apply evenly over the entire surface using a ¼" mohair roller with a phenolic resin core.

FreedomTuff® 4000 should be applied in a smooth pattern to establish uniform thickness and appearance.

Re-coating FreedomTuff® 4000 the surface must be properly prepared and primed prior to re-coating.

#### DRY FILM THICKNESS

Freedom® Chemical Corporation's FreedomTuff® GuardianGreen™ coating is a theoretical dry film thickness between 144 mils± (3657.6± microns).

#### SPECIFICATION AND FIELD ASSISTANCE

Contact Freedom® Chemical Corporation for assistance.

Jobsite visits by Freedom® Chemical Corporation's employees or its independent agents are solely for determining qualification for warranty.

#### DISPOSAL

All spilled material, unused contents of containers, empty containers and secondary containment spills/leaks, must be cleaned up and disposed of in accordance with local, state and federal regulations.

#### PRODUCT INFORMATION

See Product Information Bulletins for substrate preparation, packaging, coverage rates, primer, mixing and application information for each product selected.

FreedomTuff® products have a shelf life of 1 year from the date of manufacture, in factory-sealed containers.

#### TESTING IS REQUIRED FOR LEAK FREE WARRANTIES

Test the entire surface of the protective liner by spark testing at 100 volts per dry mil of lining thickness as per NACE Standard RPO 18B or ASTM D-1562 (steel) or ASTM D-4787 (concrete).

Substrate adhesion test should be performed seven days after application. All testing should be performed by a qualified testing agency. Freedom® Chemical Corporation is not responsible for testing.

*Incredible Stuff, Exceptional Service, and Friendly People™*

Read all the information in this product information bulletin, and material safety data sheet (MSDS) before applying any material. The information contained herein is for purposes of identifying the product and does not constitute a warranty or guaranty that the product will conform to this description. Product specifications and performance will vary depending on application methodologies, raw materials and other factors. All published information and specifications are subject to change without notification. Technical data shown in product data sheets are typical but reflect laboratory test procedures conducted in laboratory conditions. Actual field performance and test results will depend on installation methods and site conditions. Field test results will vary due to critical job site factors. All recommendations, statements and technical data contained in this data sheet are based on 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 or guaranty of any kind. Satisfactory results depend upon many factors beyond the control of Freedom® Chemical Corporation. User shall rely on their own information and tests to determine suitability of the product for the intended use and user assumes all risk, loss, damage, expense and liability resulting from their direct use, indirect use or consequential to their use of the product. Freedom® Chemical Corporation shall not be liable to the buyer or any third party for any injury, loss or damage directly or indirectly resulting from use or inability to use the product. Products manufactured by Freedom® Chemical Corporation are free of defects for a period of one (1) year, liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the materials in question. † Freedom® Chemical and FreedomTuff® are trademarks registered in the US Patent and Trademark Office. ‡ The marks of Freedom® Chemical Corporation, its divisions, slogans, emblems, other marks appearing in this document are the trademarks and/or service marks of Freedom® Chemical Corporation, its subsidiaries, affiliates or licensors Copyright© January 2019 Freedom® Chemical Corporation. All Rights Reserved.