

# FREEDOM<sup>®</sup>

## Chemical Corporation

**FreedomTuff® SentryDeck™** is an integrative coating utilizing an epoxy primer and a hand applied two component polyurethane that provides an elastomeric waterproof system with a theoretical dry film thickness of 45 mils± (1143 microns) for pedestrian decks. The system is used on concrete, wood and metal. Its quick gel and set time is convenient and allows for application to proceed while air and substrate temperatures are between 40° F (4.4° C) and 104° F (40° C).

### ADVANTAGES

- ✦ USGBC LEED, EO Credit 4.2 AND 4.3: Low-emitting VOC Compliant Materials
- ✦ Quick return to service
- ✦ Can withstand constant water immersion
- ✦ No noxious odors
- ✦ Open to traffic in 4 hours at 75° Fahrenheit (23.88° C) and 50% R.H.

### RECOMMENDED USES

- ✦ Pedestrian/Roof Decks

**NOTE:** Read all the information contained in each of the Product Information Bulletin's prior to starting any coating project.

Read MSDS for health and safety information.

Products are for professional use only.

### SURFACE PREPARATION

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.

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

Concrete should be cured for a minimum of 28 days prior to product application and have at least 3000 psi compressive and 220 psi tensile strength.

### MIXING/APPLICATION PROCEDURES

Primer is required on all substrates, except wood and on properly prepared steel (immersion requires a primer).

Mix entire/full package containers, do not measure or mix partial containers of multi-component materials.

Do not dilute under any circumstances.

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.

### PEDESTRIAN DECK

Plywood will be a minimum of 5/8" (19/32"), or 3/4" (21/33") inch thick (15.1,

15.9 or 16.7, 19.1 mm) and installed in accordance with all applicable codes.

Plywood should be new or cleaned and sanded and must be exterior grade plywood, having both tongue-and-groove edges and ends perpendicular to supports. Plywood should be installed with a maximum of 1/16" space between the plywood sheets and laid over joists on 16" centers and secured with screws or nailed with coated annular ring shank nails. Cracks in the plywood and all panel butt joints, must be sealed using a polyurethane caulking.

Installation of metal flashings at all door thresholds, jambs, posts, walls scuppers and fascia will be in accordance with applicable local codes.

If undersides of the joists are covered floor/ceiling, the cavity must be vented.

Coverage rates for all products are approximate and vary based on type of substrate, porosity, roughness and size of broadcast aggregate. See Product Information Bulletin's.

**STEP ONE:** If substrate is concrete it should be shot blasted to obtain a Concrete Surface Profile (CSP) 3-5.

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**STEP TWO:** Select appropriate *FreedomTuff®* primer, see Product Information Bulletin's.

The substrate and may require more than one coat of Freedom® Chemical Corporation's *FreedomTuff®* primer. After selection of primer, mix and immediately pour primer onto the substrate at a rate of 100 to 300 square feet per gallon (9.29030m<sup>2</sup> to 27.8709m<sup>2</sup> per liter) in sufficient quantity to obtain a theoretical dry film thickness of 5 mils (127 microns).

Do not apply more primer to substrate than can be coated with *FreedomTuff® 4300 StoneGrip™* within twelve (12) hours of set time. If primer is not coated within the allotted time, sand and re-apply primer.

Allow primer to become tack free prior to application of *FreedomTuff® 4300 StoneGrip™*.

**STEP THREE:** Apply 1 gallons (3.7854 liters) of *FreedomTuff® 4300 StoneGrip™* per 100 square feet (9.290 m<sup>2</sup>) in sufficient quantity to obtain a minimum theoretical 16 mils dry (406.4 microns); film thickness, immediately pour the *FreedomTuff® 4300 StoneGrip™* onto the horizontal surface and spread evenly over the entire surface using notched trowel or squeegee and then back roll using a roller with a phenolic resin core.

FREEDOMTUFF® SENTRYDECK™ - PEDESTRIAN

Allow *FreedomTuff*® 4300 *StoneGrip*™ to dry prior to application of *FreedomTuff*® 4300 *StoneGrip*™.

**STEP FOUR:** Apply 1 gallon (3.78541 liters) of *FreedomTuff*® 4355 per 100 square feet (9.290 m<sup>2</sup>) in sufficient quantity to obtain a minimum theoretical 16 mils dry (406.4 microns); film thickness, immediately pour the *FreedomTuff*® 4355 onto the horizontal surface and spread evenly over the entire surface using notched trowel or squeegee. Prior to its full set and starting to gel, broadcast to refusal washed, dry, rounded, contamination free 40 x 70 mesh sand (0.0165"/0.0083"), (400/210 microns), (0.400/0.210 millimeters) with 6.5 Moh's minimum hardness into the *FreedomTuff*® 4355, or as required to achieve the specified slip-resistant finish.

Excess aggregate must be completely removed.

Do not apply more *FreedomTuff*® 4355 than can be top coated within twenty four (24) hours.

Allow *FreedomTuff*® 4355 to dry prior to application of *FreedomTuff*® 4200 *GripSeal*™.

**STEP FIVE TOP COAT:** *FreedomTuff*® 4200 is applied in two coats the first coat at a rate of 125 square feet per gallon (11.6129 m<sup>2</sup>), and the second coat at a rate of 275 square feet per gallon (25.5483m<sup>2</sup>), for a total theoretical dry film thickness of 10 mils (254 microns) to achieve a desired color. Coverage rates are approximate and vary based on type of substrate, porosity, roughness and size of broadcast aggregate. *FreedomTuff*® 4200 may require more than two coats.

Proceed with application of *FreedomTuff*® 4200 while air and substrate temperatures are between 40° F (4.4° C) and 104° F (40° C) and 25% Relative Humidity.

When *FreedomTuff*® 4200 is used as a top coat it must be applied within twenty four (24) hours of the application of any Freedom® Chemical Corporation's products.

Re-coating *FreedomTuff*® 4200 *GripSeal*™ or *FreedomTuff*® 4440 the surface must be properly prepared and may require priming prior to re-coating.

#### **DRY FILM THICKNESS – PEDESTRIAN**

*Freedom*® Chemical Corporation's *SentryDeck*™ coating with an aliphatic top coat is a theoretical dry film thickness of 45 mils± (1143 microns), and with an aromatic top coat is 51.6 mils (1310.63) microns without sand.

#### **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 the purpose of determining qualification for warranty.

#### **DISPOSAL**

Spilled material, unused contents and empty containers must be disposed of in accordance with local, state and federal regulations.

#### **STORAGE/LIMITATIONS/PRODUCT SHEETS**

See Product Information Bulletins for substrate preparation, packaging, coverage rates, primer, mixing and application instructions for all products selected.

#### **TESTING**

Substrate adhesion test should be performed seven days after application.

#### **WARNING**

The *FreedomTuff*® *SentryDeck*™ coatings contain Isocyanates.

*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 that the product will conform to this description. Product specifications and performance will vary depending on application methodologies, raw materials and other factors. Guidelines, recommendations, statements, and information contained herein is 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, either expressed or implied. It is the user's responsibility to satisfy themselves, by their own information and tests, to determine suitability of the product for their own intended use, application and job situation and the user assumes all risk and liability resulting from their own use of the product. We do not suggest or guarantee that any hazards listed herein are the only ones that may exist. Neither seller nor manufacturer shall be liable to the buyer or any third party for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether verbal or in writing, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of Freedom® Chemical Corporation. Typical properties and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Performance results were obtained in a controlled environment and Freedom® Chemical Corporation makes no claim that these tests or any other tests accurately represent all environments. 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 © March 2015 Freedom® Chemical Corporation. All Rights Reserved. All published information is subject to change without notice.