



FREEDOMTUFF® PRODUCT INFORMATION BULLETIN

FREEDOMTUFF® GUARDIANDECK™ is an integrative coating utilizing an epoxy primer, spray applied FreedomTuff® 2190 polyurea, FreedomTuff® 4300 and FreedomTuff® 4000 or FreedomTuff® 4440 are hand applied two component polyurethane's that provide a protective and elastomeric waterproofing with an overall theoretical dry film thickness between 80 mils± (2032 microns) and 150 mils± (3810 ± microns), mil thicknesses are based on specification and approved by Freedom® Chemical Corporation in writing. These coatings are 100% solids, solvent free and odorless, forming a continuous seamless membrane.

ADVANTAGES

- ✦ USGBC LEED, EQ Credit 4.2 AND 4.3: Low-emitting VOC Compliant Materials
- ✦ 10-year leak free warranty – must be preapproved in writing, and requires an independent third-party inspection service
- ✦ Withstands constant water immersion.
- ✦ Chemical resistance – excellent.
- ✦ Complies with VOC and SCAQMD requirements.
- ✦ No noxious odors.

USES

- ✦ Stadiums and Arenas
- ✦ Vehicular Decks, Parking Structures and Loading Docks

PROFESSIONAL USE ONLY

Read and understand all the information contained in the Product Information Bulletin's, 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

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 4 - 7

Profile steel between 4-6 mils

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, and roughness and size of broadcast aggregate.

PACKAGING

See individual Product Information Bulletin.

PRIMER

Select appropriate primer from individual Product Information Bulletin. 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

STEP ONE: Apply two (2) coats Freedom Chemical® Corporation's FreedomTuff® primer over the entire surface in sufficient quantity to obtain a minimum theoretical dry film thickness of 10 mils (254 microns). Apply the first and second coats at a rate of 100 to 300 square feet per gallon (9.29030m² to 27.8709m² per liter), in sufficient quantity to obtain a theoretical 5 mils (127 microns) per coat dry film thickness. Let the first coat of FreedomTuff® primer become tack free prior to application of the second coat. Aggregate the second coat of primer with approximately 0.125 pounds of washed, rounded, dry contamination free sand nominal sieve size #30-60.

Excess (loose) aggregate must be completely removed before application of the FreedomTuff® 2190.

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

STEP TWO: 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.

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

FREEDOMTUFF® GUARDIANDECK™

- Temperatures preheaters & hose 165° F (73.8889° C) each

Spray apply FreedomTuff® 2190 at a minimum of 4 gallons (15.1416liters) per 100 square feet (9.290 m²) to the substrate, to achieve a theoretical dry film thickness between 64 mils± (1625.6 microns) to 100 dry mils (3810 microns) over the entire surface, mil thicknesses are based on specification and approved by Freedom® Chemical Corporation in writing.

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

When FreedomTuff® 2190 is applied in sections, each application must overlap the previous one within 0 – 6 hours by a minimum four (4") to a neat straight line.

STEP THREE: Application of FreedomTuff® 4300 must start within 0 - 6 hours of spraying FreedomTuff® 2190. FreedomTuff® 4300 Part-B should be mixed individually prior to combining, add Part-A to Part-B while mixing, using a mechanical mixer at medium speed making sure not to encapsulate any air. Mix until a homogeneous mixture and color is obtained (a minimum of 2 minutes is recommended).

Apply FreedomTuff® 4300 onto the horizontal surface and spread evenly over the entire surface using 1/8" notched squeegee, then back roll using a ¼ "mohair roller with a phenolic resin core.

On horizontal and vertical surfaces hand apply FreedomTuff® 4300 at 1½ gallons (5.67812 liters) per 100 square feet, to the FreedomTuff® 2190 in sufficient quantity to obtain 24 dry mils (609.6 microns). Prior to its full set and starting to gel, broadcast to refusal a washed, dry, rounded, contamination free 20 x 40 nominal sieve size sand (0.0331"/.850 millimeters, .0165"/.425 millimeters) with 6.5 Moh's minimum hardness into the FreedomTuff® 4300. If shiny spots appear this area must be sanded, re-apply FreedomTuff® 4300 and sand.

Excess (loose) aggregate must be completely removed before application of the FreedomTuff® 4000 or FreedomTuff® 4440.

STEP FOUR: FreedomTuff® 4000 is applied in one coat at a rate of 1-gallon (3.7854 liters) per 100 square feet per gallon (9.290 m²) or in sufficient quantity to obtain a minimum theoretical dry film thickness of 16 mils (304.79 microns) to achieve a desired color. Immediately pour the FreedomTuff® 4000 onto the horizontal surface and spread evenly over the entire using a flat edge squeegee and then back roll using a ¼" mohair roller with a phenolic resin core.

(OPTIONAL AROMATIC TOP COAT): FreedomTuff® 4440 is applied in one coat at a rate of 1-gallon (3.7854 liters) per 100 square feet per gallon (9.290 m²) or in sufficient quantity to obtain a minimum theoretical dry film thickness of 16 mils (304.79 microns) to achieve a desired color. Immediately pour the FreedomTuff® 4440 onto the horizontal surface and spread evenly over the entire using a flat edge squeegee and then back roll using a ¼" mohair roller with a phenolic resin core.

Recoat window is within 18 hours of application, if not recoated within 18 hours, sand and re-prime the surface and proceed with recoat.

Warranties over one (1) year require an additional coat at the turn radii, and ramps. Contact Freedom® Chemical Corporation for assistance.

DRY FILM THICKNESS

Freedom® Chemical Corporation's FreedomTuff® GuardianDeck™ coating has an overall theoretical dry film thickness between 80 mils± (2032 microns) to 140 mils± (3556 ± microns) without sand.

STRIPING

It is recommended that the end user check the suitability of using an epoxy paint for striping. Apply striping within eighteen (18) hours of applying FreedomTuff® top coats.

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

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). Or other method approved by Freedom® Chemical Corporation.

Substrate adhesion test should be performed seven days after application.

WARNING

The products listed in this Product Information Bulletin contain Isocyanates and Epoxy Resins.

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.