



FREEDOMTUFF® PRODUCT INFORMATION BULLETIN

FREEDOMTUFF® DEFENDERDECK™ is an integrative group of hand applied coatings utilizing an epoxy primer and multiple two component polyurethanes that provide an elastomeric waterproof coating with a theoretical dry film thickness of 44± mils (1117.6 microns) for vehicular traffic. These coatings are 100% solids, solvent free and odorless, applied vertically or horizontally on concrete forming a continuous seamless membrane.

ADVANTAGES

- ✦ No noxious odors
- ✦ Quick return to service
- ✦ USGBC LEED, EQ Credit 4.2 AND 4.3: Low-emitting VOC Compliant Materials

USES

- ✦ Parking Structures, Pedestrian and Roof Decks

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.

MIXING

See Product Information Bulletin's.

Do not dilute or 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.

PRIMER

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 (9.29030m² to 18.5806m² per liter) in enough quantity to obtain a minimum theoretical dry film thickness of 8 mils (203.2 microns) per coat.

Do not apply more primer to substrate than can be coated with FreedomTuff® 4280 within eighteen (18) hours of application. 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® 4280.

For optimum results proceed with application while air and substrate temperatures are between 40° F (4.4° C) and 104° F (40° C) 6° (-14.44° C) above the dew point and rising.

FreedomTuff® 4280 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).

STEP TWO: Apply 1¼ gallon (4.731765 liters) per 100 square feet of FreedomTuff® 4280 in enough quantity to obtain a minimum theoretical 20 mils dry (508 microns) film thickness (or more to meet architectural specification). Immediately pour the FreedomTuff® 4280 onto the horizontal surface and spread evenly over the entire surface using notched trowel or squeegee then back roll using a ¼ "mohair roller with a phenolic resin core.

Recoat window is within 24 hours of application, if not recoated within 24 hours, sand and re-prime the surface and proceed with recoat.

NOTE: Turn radii and ramps require an additional coat of FreedomTuff® 4280 at 1-gallon (3.78541 liters) per 100 square feet or in enough quantity to obtain a minimum theoretical 16 mils dry (406.4 microns) film thickness.

STEP THREE: Apply ¾ gallons (2.83906 liters) per 100 square feet of FreedomTuff® 4295 in enough quantity to obtain a minimum theoretical 12 mils dry (304.8 microns) film thickness (or more to meet architectural specification). Immediately pour the FreedomTuff® 4295 onto the horizontal surface and spread evenly over the entire surface using notched trowel or squeegee then back roll using a ¼" mohair roller with a phenolic resin core.

Prior to its full set, broadcast 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® 4295, to achieve a slip-resistant finish.

Excess aggregate must be completely removed.

Do not apply more FreedomTuff® 4295 than can be top coated within twenty-four (24) hours.

Allow Step four to dry prior to application of FreedomTuff® 4295.

STEP FOUR: Apply ¾ gallon (2.83906) of FreedomTuff® 4295 top coat in enough quantity to obtain a minimum theoretical of 12 mils (304.8 microns). Immediately pour the FreedomTuff® 4295 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.

Proceed with application while air and substrate temperatures are between 40° F (4.4° C) and 104° F (40° C).

DRY FILM THICKNESS

Over occupied space Freedom® Chemical Corporation's FreedomTuff® DefenderDeck™ is a theoretical dry film thickness of 44± mils (1117.6 microns) without sand using FreedomTuff® 4295.

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 and leaks must be cleaned up in accordance with local, state and federal regulations.

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

TESTING

Perform an adhesion test prior to starting any coating project.

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.