



## Chemical® Corporation

### FT-6500® Novalac Epoxy

#### System Application Sheet

#### PRODUCT DESCRIPTION

Freedom Chemical Corporation's FreedomTuff® 6500 is a 100% solids three-component Novalac epoxy, used as a protective coating with excellent chemical, abrasion and impact resistance, designed for used in primary and secondary containment atmospheres. FreedomTuff® 6500 is used in vertical and horizontal applications on concrete, masonry and steel surfaces.

#### ADVANTAGES

- ✦ Excellent Chemical Resistance
- ✦ Excellent Impact and Abrasion Resistance
- ✦ Low Odor
- ✦ Meets SCAQMD Requirements 100% Solids
- ✦ Semi-Gloss Finish
- ✦ Temperatures up to 350° F

#### RECOMMENDED USES

- ✦ Acid and Caustic Exposures
- ✦ Chemical Processing
- ✦ Food Processing Plants (Meets USDA Requirements)
- ✦ Power Plants
- ✦ Primary and Secondary Containment
- ✦ Water Treatment Facilities

#### 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 well established that correct surface preparation is the most important factor affecting the total success of surface treatment. The presence of even small amounts of surface contaminants, oil, grease, oxides etc. can physically impair and prevent coating adhesion to the substrate.

Be sure that surfaces are clean, dry, and sound and given sufficient profile to obtain adequate product adhesion.

Remove all dust, efflorescence, laitance, salts, curing compounds, dirt, oil, form release agents, and other foreign matter.

Perform an adhesion test prior to starting any coating project.

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.

#### COLOR

Color Packs – many standard colors are available and custom colors at an additional cost. Due to its chemical composition, FT-6500 will discolor.

#### COVERAGE RATE

Theoretical 80 - 107 square feet per gallon at 15 – 20 mils wet film thickness (20m<sup>2</sup> to 26m<sup>2</sup> per liter at 380 – 500 microns). Coverage rates may vary based on the roughness and porosity of the concrete.

#### PACKAGING

4 Gallon Kit: 2¾ gallons (10.41 liters part-A) 1 gallon (3.78 liters part-B) and .25 (0.946 liters part-C).

#### MIXING PROCEDURES

Blend part-A with part-B and part-C into a clean container.

Adequately blend FT-6500 for 2 to 3 minutes at a slow speed using a drill motor and paddle until the mixture is consistent making sure not to encapsulate any air.

Do not dilute FT-6500 under any circumstances.

Mix entire/full package containers of multi-component materials. Do not measure nor mix partial containers of multi-component materials.

#### APPLICATION

Test concrete for moisture vapor transmission (MVT) using calcium chloride testing ASTM F-1869 or in-situ RH testing ASTM F-2170. Do not exceed a maximum of 3 pounds per 1000square feet over 24 hours or a value below 70% RH (internal concrete humidity).

After thoroughly mixing apply FT-6500 immediately pour it onto the horizontal surface and spread evenly over the entire surface using notched squeegee and back roll with a ¼" mohair roller cover, do not puddle.

Working time for FT-6500 is approximately 30 minutes.

Substrate and material temperature should be between 65° F (18° C) and 90° F (32° C). Relative Humidity should be limited to 30 – 80%. Insure that the outside temperature is at least 6° (-14.44) above the dew point and rising.

FT-6500 must be protected from heavy traffic, chemicals and abuse during the curing process, which at an ambient temperature of 75° F (23.88° C) takes from 5 to 7 days.

#### EQUIPMENT CLEAN UP

Immediately clean equipment with an environmentally safe solvent, as permitted by local regulations. Cured or dried material may be removed by mechanical means.

#### SPECIFICATION ASSISTANCE

Contact Freedom Chemical Corporation for specification assistance.

Jobsite visits by Freedom Chemical Corporations employees or its independent agents are solely for the purpose of determining qualification for warranty.

#### STORAGE

FT-6500 should be stored indoors and has a shelf life of 1 year shelf life from the date of manufacture, in factory-sealed containers.

FT-6500 should be stored between 65° F (18° C) and 90° F (32° C) at or below 50% Relative Humidity.

Never store directly on concrete surface, always store on pallets.

Avoid freezing temperatures.

Rotate stock regularly.

#### LIMITATIONS

The end user should check the suitability of this product prior to its application.

Excess moisture vapor in concrete slabs may result in FT-6500 to delaminate or cause improper curing.

Do not open until ready to use.

Freedom Chemical assumes no liability for substrate defects.

Substrates that have previously been coated are subject to absorption, which may affect the adhesion of a new coating.

Rain, high temperatures and humidity can significantly affect pot life and the cure time.

Low temperatures and humidity can extend the cure time.

Not UV Stable FT-6500 will discolor.

FT-6500 is not non-staining.

Spill removal will prolong the service life of the FT-6500.

#### WARNING

FT-6500 contains Epoxy Resins.

#### TECHNICAL DATA

TACK FREE TIME (DEPENDS ON THICKNESS & SUBSTRATE TEMPERATURE)	
ASTM D-2369.....	3 HOURS
DRY TIME ASTM D-2369.....	5-8 HOURS
CURE ASTM D-2369.....	7 DAYS
FLASH POINT ASTM D-3278.....	<255° F (124° C)
MIXED VISCOSITY ASTM D-2196.....	1300 - 2300 CPS
HARDNESS (PENCIL) ASTM D-3363.....	7 H
TENSILE, ASTM D-2370.....	8,000 PSI
TABER ABRASION RESISTANCE, ASTM D-4060 (CS - 17, LOSS/1000 CYCLES/MASS.....	75 MG LOSS
COEFFICIENT OF FRICTION JAMES TEST ASTM D-2747..	0.7
TOTAL SOLIDS BY WEIGHT, ASTM D-2369.....	100%
TOTAL SOLIDS BY VOLUME, ASTM D-2369.....	100%
ADHESION TO CONCRETE ASTM D-4541 CONCRETE FAILED AT.....	350 PSI
IMPACT ASTM D-2794.....	16 IN.LBS DIRECT & REVERSE
VOLATILE ORGANIC COMPOUNDS ASTM D-3960...0 LB/GAL, 0 GM/LITER	

NOTE: PHYSICAL PROPERTIES MAY VARY ON THE TYPE OF SPRAY EQUIPMENT USED. THE END USER SHOULD CHECK THE SUITABILITY OF THIS PRODUCT PRIOR TO ITS USE.

#### CHEMICAL RESISTANCE

7 DAY IMMERSION @ 77° F (25° C) 50% RELATIVE HUMIDITY

##### R - RECOMMENDED (NOT EFFECTED)

##### C - CAUTION (AFTER ONE DAY LIMITED NEGATIVE EFFECT)

AMMONIUM HYDROXIDE 10% - R	MINERAL SPRITS - R
AMMONIUM NITRATE 20% - R	MOTOR OIL - R
BLEACH - R	NITRIC ACID 10% - R
BRAKE FLUID - R	OLEIC - R
CITRIC ACID 10% - R	PHOSPHORIC ACID 50% - C
D-LIMONENE - R	SKYDROL LD 4 - R
ETHYLENE GLYCOL - R	SODIUM CHLORIDE 20% - R
GASOLINE - R	SODIUM HYDROXIDE 50% - R
HYDROCHLORIC 30% - C	SULFURIC ACID 98% - R
ISOPROPANOL - R	TSP 10% - R
JET FUEL - R	XYLENE - R

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

LIMITED WARRANTY: Read all information in the product data sheets, and material safety data sheets (MSDS) before applying material. Product information and instructions are subject to change without notice. Contact your Freedom Chemical Corporation agent or visit our website for current product information and instructions. Products manufactured by Freedom Chemical Corporation are free of defects and will meet Freedom Chemical Corporations current published physical properties. There are no other warranties given by Freedom Chemical Corporation of any kind implied, or expressed, including any warranty of fitness for a particular purpose, and/or merchantability in connection with this product.

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