HEMP COAT

PRODUCT DATA SHEET

RUST-OLEUM© Citadel CFFS
ULTRA-HYDRO STOP PRIMER™
citadelfloors.com
VOC compliant in all 50 states and Canada

Product Description

Hemp Coat™ | CFFS Ultra-Hydro Stop Primer™ is a two component, 100% solids, moisture vapor transmission **(MVT)** blocking and pH resistant epoxy primer used to remedy concrete floors with high moisture levels before the application of finish coatings. Capable of holding back up to 25 lbs. of MVT, this primer has excellent adhesion to even the most moisture laden concrete slabs. Ultra-Hydro Stop Primer also exhibits great self leveling properties and is unaffected by high pH levels up to 14, making it the perfect solution on any concrete surface.

Product Features

- Displays excellent adhesion characteristics to concrete.
- Long working time eases in the spread of the mixed material.
- Resistant to high alkalinity floors up to 14 pH.
- Holds back up to 25 lbs./1000 sf/ 24 hrs. as measured using anhydrous calcium chloride tests.
- Will provide a glossy smooth finish when cured.
- 100% solids coating displays good chemical resistance.
- Emits virtually no odors and can be applied indoors with minimal disturbance to surrounding activities.
- Excellent self leveling properties increase hiding power over damaged substrates. Pure epoxy chemistry makes it resistant to deterioration from internal concrete conditions.
- Can be applied to "Green Concrete" as early as 7 days after placement.
- Easy to mix 3:2 ratio, packaged in convenient kits.

Primary Applications

- High build primer
- Self leveling coating
- Moisture stopping primer

Suitable For Use Under

- Epoxies
- Urethanes
- Polyureas
- Ceramic tile
- Hardwood flooring
- VCT tile
- Linoleum
- Cementitious overlays
- Carpet

Product is sold CLEAR.

Typical Physical Properties

Pot Life	Empty container immediately after mixing.
Work Time	20-25 minutes
3:2 Ratio	Surface dry-8-12 hours
Relativity Humidity-72˚F-54%	Hard dry-8-12 hrs
VOC Content	Compliant in all 50 states and Canada
Permeability (gr./ft^2/hr. in Hg^{-1})	0.09

Recommended Coverage

Over CSP-3 Shot Blast Concrete — 80-100 sf/gal @ 16 mils DFT

Adhesion Results

(ASTM D4541 Elcometer)

Concrete	Concrete failure	>450psi

Temperature

50˚F - 100˚F (10˚C - 38˚C)
Colder temperature applications should not be attempted with this material. It is possible to condition the environment to allow for application via heaters and enclosures. The concrete surface must be at least 5˚F above the Dew Point temperature. Coating should be applied when temperature is steady and/or falling. **DO NOT APPLY UNDER 50˚C FOR WHEN TEMPERATURE IS RISING. DO NOT APPLY IN DIRECT SUNLIGHT.**

Shelf Life and Storage

Twelve months in factory delivered unopened drums and buckets. Keep away from extreme heat, cold and moisture. Maintain at a proper storage temperature of 60-90˚C F. Keep out of direct sunlight and away from fire hazards.

Safety and Handling

Always wear protective rubber gloves and eye protection when mixing or handling this material and provide proper ventilation. For more information, see Material Safety Data Sheets.

Packaging

Available in 5 gallon kits (3A, 2B)

Surface Preparation

Old concrete - Sandblasting, shot blasting, or water blasting is highly recommended to remove surface contaminants. Acid etching is not an acceptable method of preparation. Any oils or fats must be completely removed prior to product application. Sealers, Silicates, and failed coatings must be removed via mechanical abrasion. Do not apply to wet substrates. Chloride, moisture and pH levels should be checked prior to application. Concrete surface should represent a minimum ICRI CSP-3 profile before coating can commence.

New Concrete

The concrete should be allowed to cure for a minimum of 7 days when using CFFS Ultra-Hydro Stop Primer™. Shot blasting or sand blasting is required to remove the surface laitance that appeared during the curing process. Sealers, Silicates, and failed coatings must be removed via mechanical abrasion. Chloride, moisture and pH levels should be checked prior to application. Concrete surface should represent a minimum ICRI CSP-3 profile before coating can commence.

Substrate Repairs

All spalls and cracks should be chased out and repaired to ICRI standards using CFFS-Fortification Formula. For floors with exceptionally high moisture levels, cracks should be repaired with a mix of CFFS Ultra-Hydro Stop Primer and Cabosil applied using trowels or putty knives prior to coating. Expansion joints must be honored. CFFS Ultra-Hydro Stop Primer should be applied down into horizontal saw-cut control joints and allowed to cure a minimum of 24 hours before they can be filled with a backer rod and CFFS Polyflex-93 or compatible Polyurethane sealant.

Primer Requirements

Please consult your product supplier for job specific recommendations. CFFS Ultra-Hydro Stop Primer is designed to be applied direct to concrete and under no circumstances should a separate primer be applied prior to the application of CFFS Ultra-Hydro Stop Primer.

Installation Recommendations

CFFS Ultra-Hydro Stop Primer adheres well to several sound substrates and coatings including but not limited to; concrete, fiberglass, and wood. All surfaces should be free of loose particles, rust, voids, and spalls. It is recommended that this product be roll applied in a multi-directional (north, south, east and west) motion to help ensure proper coating thickness.

Application Information

Mixing

Material and environment should be pre-conditioned to a minimum of 50˚F (10˚C) prior to use. If not mixing a full kit, thoroughly mix both the A and B side components using separate paddle mixers and a drill for a minimum of 2 minutes to place the solids content evenly in suspension. This should be done prior to every use before combining the two components. This material is packaged in kits which allow for easy mixing by pouring the entire contents of the **Part B** container (2 gallons) into the short-filled **Part A** container (3 gallons) while spinning to create a vortex. If it must be mixed in smaller quantities, follow the mix ratio of 3A:2B to combine the two components in a calibrated mixing container. Blend the two components together with a paddle style mixer and drill for at least 1 minute. Recommended practice is to transfer the mixed material to another clean container and blend for an additional 1 minute prior to use. **Never mix more material than can be placed and finished in 20-25 minutes.**

Squeegee Application

CFFS Ultra-Hydro Stop Primer is to be applied using 1/4" notched squeegees or trowels at a spread rate of 80-100 sg/gal.
DO NOT APPLY THE MATERIAL THINNER THAN SPECIFIED OR LOSS OF PERFORMANCE WILL OCCUR.

Roller

Use only high quality, shed and solvent resistant, phenolic core, natural or synthetic fiber roller covers. 3/8" nap are recommended, thicker nap may cause bubbling of the coating. A spiked roller can be used to release any entrapped air in the coating if required.

Brush

Inexpensive natural fiber chip brushes are suggested - 2"-4" width depending on the application. These will be one-time use items.

Thinner

CFFS Ultra-Hydro Stop Primer should NOT be thinned using any type of solvent. Use alternate coatings if a thinner material is required.

Clean Up

Use Acetone on tools and equipment before product cures.

LEED Credits

Most HempCoat™ products contribute to LEED Credits. See our LEED Credit Bulletin for more information.

Certifications

VOC Compliant in all 50 states, Canada, Australia and Various Countries in Europe (National Standards - IMC)

Compatible Coatings

Primers

CFFS Ultra-Hydro Stop (Epoxy MVT Primer)

***CFFS Ultra-Hydro Stop Primer requires scuff sanding via 80- 120 grit sandpaper to provide a profile for additional coatings after it has fully cured (approx. 12 hours)**

Intermediates

CFFS Poly100-SC	(Single Component Aromatic Polyurea)
CFFS Polyurea-350	(Polyurea)
CFFS Polyurea-1 HD	(Single Component Aliphatic Polyurea)
CFFS Level-Hard	(Epoxy Hybrid)

Clear Finish Topcoats

CFFS RG-80	(Aliphatic Polyaspartic Polyurea)
CFFS PG-100	(Aliphatic Polyaspartic Polyurea)
CFFS Polyurea-1 HD	(Single Component Aliphatic Polyurea)

Accelerator

No additional catalyst is required or available to reduce cure time.

Coverage Calculations

General Coating Thickness (@100% Solids)	Sq. Ft/gal
1 mils	1600
5 mils	320
10 mils	160

Safety Precautions

DANGER!! Vapor and Atomized liquids are harmful. Overexposure may cause lung damage, allergic skin reactions, or respiratory reactions. Effects may be permanent, may affect the brain or nervous system causing dizziness, headaches, or nausea. Use only in well ventilated areas, wear approved respirators when necessary. Keep out of reach of children. See MSDS for First Aid recommendations.

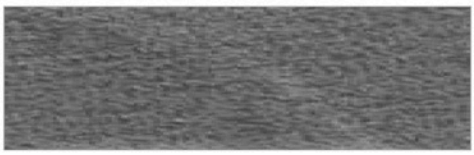
Shipping Information

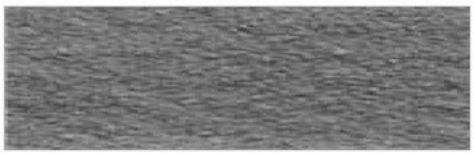
Flash Point:	>93˚C (>200˚F)
Weight/Gallon:	10.2 ±1.0 lbs.
DOT HAZARD CLASS	8
DOT PACKAGING GROUP	II
DOT LABEL	Corrosive (Part B)
DOT SHIPPING NAME	Amine, Liquid, Corrosive
UN / NA NUMBER	2735 (Part B)

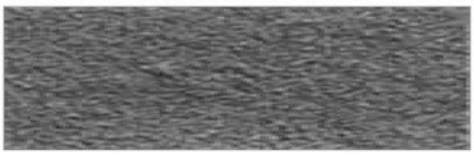
Warranty

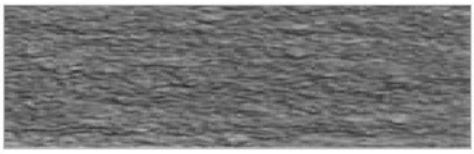
The technical data and any other printed information furnished by Citadel are true and accurate to the best of our knowledge. HempCoat™ Citadel Ultra-Hydro Stop Primer™ conforms to in house quality control procedures and should be considered free of defects. The data provided is believed to be reliable and is offered solely for evaluation. The use of this product is beyond the control of the seller, therefore the buyer assumes all risks of use and handling whether done in a matter that is in accordance with the provided posted directions or not. CFFS makes no warranty; expressed or implied, of its products and shall not be liable for indirect or consequential damage in any event.

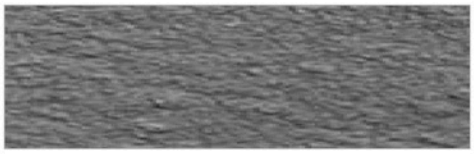
International Concrete Repair Institute (ICRI) Concrete Surface Profile (CSP) Scale

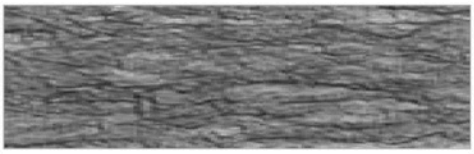

CSP 1 (acid etched)

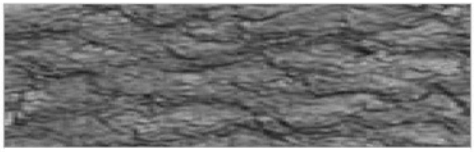

CSP 2 (grinding)

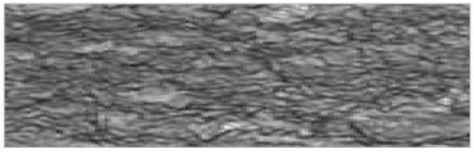

CSP 3 (light shotblast)

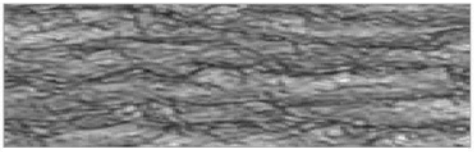

CSP 4 (medium shotblast)


CSP 5 (medium-heavy shotblast)


CSP 6 (heavy shotblast)


CSP 7 (heavy shotblast)


CSP 8 (extreme shotblast)


CSP 9 (extreme shotblast)