



## CFFS POLY100-SC PRIMER / BASECOAT

### Product Description

CFFS Poly100-SC™ is a single component, 100% solids, aromatic Polyurea that has excellent adhesion properties to a variety of substrates. Due to its unique chemical make-up and manufacturing process, this coating exhibits great wetting properties while offering a virtually unlimited pot-life. Low odor and minimal VOC content make it a great choice for both interior and exterior applications.

### Product Features

- ❖ Displays excellent adhesion characteristics to a variety of substrates / coatings.
- ❖ Emits virtually no odors and can be applied indoors with minimal disturbance to surrounding activities.
- ❖ Unlimited pot life increases the workability of the coating, providing consistent aggregate broadcasts.
- ❖ Single component means no possible mixing errors, thus eliminating the human error factor.
- ❖ 100% solids formulation.
- ❖ Versatile primer for use on both horizontal and vertical applications.
- ❖ Exhibits fast return-to-service and cure times.
- ❖ Incredible bond to prepared metals, concrete, and fiberglass.
- ❖ Maintains flexibility even in cold temperatures.

### Primary Applications

- ❖ Large warehouse facilities
- ❖ Heavy traffic areas
- ❖ Aircraft hangar floors
- ❖ Maintenance facilities
- ❖ Offshore platforms
- ❖ Industrial shop floors
- ❖ Commercial kitchens
- ❖ Bathrooms and Lavatories
- ❖ Chemical manufacturing plants
- ❖ Residential garages and basements
- ❖ Marine applications

### Packaging

Product is sold CLEAR. Contact CFFS for available colors and mixing ratios. Available in 2 gallon pails.

### Typical Physical Properties

Tensile Strength	ASTM D412	5,200
Compressive Strength (psi Mpa)	ASTM D695	11,500
Elongation	ASTM D412	75
Tear Strength (PLI)	ASTM 2240	740
Hardness, Shore D	ASTM D2240	78
Flexibility, 1/8" Mandrel	ASTM D1737	Pass
Falling Sand Abrasion Resistance	ASTM D968	30
<small>*Liters sand/ 1 dry mil</small>		
Abrasion Resistance	ASTM D4060	
CS17-Wheel (1,000 gm Load)		20 mg Loss / 1000 cycles
Viscosity at 77°F (cps)		2300
VOC Content		< 10 g/l

### Typical Processing Properties

Single Component - 72°F (24°C)	Tack Free - 1-2 hours
Relative Humidity - 54%	Hard dry - 3-6 hours
	Recoat Minimum - 2 hours
	Recoat Maximum - 12 hours

Coverage: 1,600 square feet, per gallon, per mil.

Recommended Coverage

<b>Primer (Ground Concrete)</b>	<b>300-400 sf/gal</b>	<b>@4.6 mils DFT</b>
<b>Primer (Acid Wash Concrete)</b>	<b>400-500 sf/gal</b>	<b>@3.6 mils DFT</b>
<b>Primer (Metal)</b>	<b>400-700 sf/gal</b>	<b>@2.9 mils DFT</b>

VOC compliant in all 50 states and Canada

### Adhesion Results

ASTM D-4541 Elcometer

Concrete	concrete failure	>500psi
Steel	shear failure	>2000psi
Wood-no primer	wood failure/shear	>400psi

### Temperature

40°F - 120°F (4°C - 49°C)

Optimal installation temperature is 55°F -90°F (13°C -32°C).

Extreme cold applications may slow the cure time.

## Surface Preparation

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### Concrete

**Old concrete** - Sandblasting, diamond grinder w/30 grit or coarser, or water blasting is highly recommended to remove surface contaminants. Any oils or fats must be removed prior to product application. Do not apply to wet substrates. Chloride, moisture and pH levels should be checked prior to application.

**New Concrete** - The concrete should be allowed to cure for a minimum of 30 days unless using CFFS Ultra-Hydro Stop Primer. Sand blasting, diamond grinder w/30 grit or coarser or acid etching is required to remove the surface laitance that appeared during the curing process. Shot blasting is not suggested. Chloride, moisture and pH levels should be checked prior to application. CFFS Poly100-SC Primer/Basecoat can be used to reduce outgassing.

### Aluminum, Galvanized Steel, Non-Ferrous Metals

All metals must be prepared to a near white surface that is equivalent to SSPC 10 or NACE 2. For immersion service, a 3 mil blast profile is recommended. A 2 mil profile is generally accepted. CFFS Poly100-SC Primer/Basecoat must be used as the adhesive primer prior to applying other coatings.

### Fiberglass

The gel coat must be abraded to allow a mechanical bond of the coating. Sanding using 40-60 grit sandpaper is generally acceptable. Remove all latent dust and clean the surface to be coated using a solvent such as MEK and allow to fully flash off before coating. CFFS Poly100-SC Primer/Basecoat should be used as the adhesive primer prior to applying other coatings.

### Wood

Sand entire surface to remove any burs or rough spots that may affect the finish of the coatings. Make sure all nail/screw holes and joints are detailed using either RSP Fast Patch or CFFS Fortification Formula prior to coating. Cotton mesh may be used to help bridge joints in moving substrates. Primer will be CFFS Polyurea-350. CFFS Poly100-SC Primer/Basecoat is not recommended as a high build primer on wood substrates.

### Existing Coatings

Cured coatings (beyond their re-coat windows) must be abraded via scuff sanding with 80-120 grit sandpaper prior to the application of CFFS Poly100-SC Primer/Basecoat. Wipe surface clean with a tack rag after a thorough vacuuming to perform a final cleaning.

### Substrate Repairs

All spalls and cracks should be chased out and repaired to ICRI standards using CFFS-Fortification Formula. Expansion joints should be honored. Horizontal saw-cut control joints can be filled with CFFS Polyflex-93. Contact CFFS for recommendations and available colors and finishes.

## Primer Requirements

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Please consult your product supplier for job specific recommendations. In most cases the acceptable primers will be CFFS Polyurea-350, CFFS Poly100-SC, CFFS Eco-Prime, CFFS Polyurea-1 HD, CFFS Ultra-Hydro Stop or CFFS Level-Hard.

## Installation Recommendations

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CFFS Poly100-SC adheres well to several sound substrates and coatings when properly prepared including but not limited to; concrete, steel, fiberglass, epoxy, urethanes, and polyureas. All surfaces should be free of loose particles, rust, voids, and spalls. It is recommended that this product be applied in a multi-directional (north, south, east and west) motion to help ensure proper coating thickness.

## Application Information

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### Mixing

Material should be pre-conditioned to a minimum of 50°F (10°C) prior to use. The material temperature must be brought to 5°F above the dew point temperature before opening and agitating the material to prevent condensation from entering the coating. Thoroughly mix the single component material using a paddle mixer 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. CFFS recommends pouring small amounts (1-2 gallon) into application containers to limit the amount of moisture introduced into the coating before being applied to the floor. Any unused material may be placed back in a separate, sealed storage container for future use. **DO NOT POUR UNUSED MATERIAL BACK INTO THE ORIGINAL SHIPPING CONTAINER AS IT COULD CONTAMINATE THE ENTIRE BATCH.** Seal all containers immediately after pouring out desired quantities. It is important to limit the time the container is open. Mix and pour out only what is needed. At the end of the day apply a solvent "float" of approximately 5 ounces of MEK over the surface of the coating before resealing the container.

### Roller

Use only phenolic core, solvent resistant, natural or synthetic fiber roller covers. ¼" to 3/8" nap are acceptable, thicker nap may cause bubbling of the coating.

### Brush

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

### Thinner

CFFS Poly100-SC can be thinned with up to 10% MEK by volume if a thinner coating is required. **DO NOT USE ACETONE.**

### Clean Up

Use ACETONE or MEK to clean tools, etc. before product cures.

## Application Conditions

### Shelf Life and Storage

SIX (6) months in factory delivered unopened buckets. Keep away from extreme heat, cold and moisture. Maintain at a proper storage temperature of 60-100° F. Keep out of direct sunlight and away from fire hazards. **DO NOT APPLY IN DIRECT SUNLIGHT OR WHEN TEMPERATURES ARE STEADILY RISING.**

### Repairs and Maintenance

Re-application of the product after 12 hours of initial application requires sanding and cleaning to achieve optimum adhesion. Contact CFFS for site specific recommendations.

## Compatible Coatings

### Primers

CFFS Poly100-SC	(Single Component Aromatic Polyurea)
CFFS Ultra-Hydro Stop	(Epoxy MVT Primer)
CFFS Polyurea-350	(Polyurea)
CFFS Level-Hard	(Epoxy Hybrid)

### Intermediates

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

### Clear Finish Topcoats

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

## LEED Credits

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

## Chemical Resistance

Acetic Acid 100%	RC	Methanol	R	Sugar/H2O	R
Acetone	R	Methylene Chloride	C	Sulfuric Acid 10%	R
Ammonium Hydroxide 50%	RC	Mineral Spirits	R	Sulfuric Acid >50%	R
Benzene	RC	Motor Oil	R	Toluene	R
Brake Fluid	RC	MTBE	C	1, 1,1-Trichlorethane	C
Brine saturated H2O	R	Muriatic Acid 10%	R	Trisodium Phosphate	R
Chlorinated H2O	R	NaCl/H2O 10%	R	Vinegar/H2O 5%	R
Clorox(10%) H2O	R	Nitric Acid 20%	RC	H2O 14 days at 82° C	R
Diesel fuel	RC	Phosphoric Acid 10%	RC	Xylene	R
Gasoline	R	Phosphoric Acid 50%	NR		
Gasoline/5% MTBE	R	Potassium Hydroxide 10%	R		
Gasoline/5% Methanol	R	Potassium Hydroxide 20%	R, Dis		
Hydrochloric Acid 20%	R	Propylene Carbonate	RC		
Hydrofluoric Acid 10%	RC	Skydrol	RC		
Hydraulic fluid (oil)	RC	Sodium Hydroxide 25%	R		
Isopropyl Alcohol	R	Sodium Hydroxide 50%	R, Dis		
Jet Fuel (JP-4)	R	Sodium Hypochlorite 10%	R		
Lactic Acid	RC	Sodium Bicarbonate	R		
MEK	RC	Stearic Acid	R		

## Certifications

VOC Compliant in all 50 states, Canada, Australia and Various Countries in Europe (National Standards – IMC)  
USDA and FDA certified food safe for incidental food contact.

## Shipping Information

Flash Point:	110° C (230° F)
Weight/Gallon:	9.9 ±1.0 lbs.
DOT HAZARD CLASS	N / A
DOT PACKAGING GROUP	II
DOT LABEL	N / A
DOT SHIPPING NAME	Paint Related Material
DOT PLACARD	N / A
UN / NA NUMBER	1263

## 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.

## Warranty

The technical data and any other printed information furnished by CFFS are true and accurate to the best of our knowledge. CFFS POLY100-SC™ 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.

## Chemical Resistance Key

R=recommended/little or no visible damage  
RC=recommended conditional/some effect, swelling or discoloration  
C=Conditional/Cracking-wash within one hour of spillage to avoid affects  
NR=Not recommended  
Dis=Discolorative