



ESTABLISHED 1935

## TECHNICAL BULLETIN UC-5500 November 2008

### UC-5500 Series Polyurethane Coating for Spray Applications

**GENERIC TYPE:** A two package, polyurethane coating.

**RECOMMENDED USAGE:** An exterior coating for chemical process equipment, transportation vessels, storage tanks and other applications where flexibility, hardness, toughness, abrasion resistance and weatherability are required.

#### **CHEMICAL RESISTANCE GUIDE:**

<u>EXPOSURE</u>	<u>FUMES</u>	<u>SPLASH &amp; SPILLAGE</u>
Acids	Good	Good
Solvents	Excellent	Good
Alkalies	Excellent	Excellent
Saltwater	Excellent	Excellent
Water	Excellent	Excellent

#### **ORDERING INFORMATION:**

##### **Shipping Weight:**

UC-5500 Kit	Approx. 13 lbs. / gal.
S-330 Solvent	Approx. 8.5 lbs. / gal.

**Packaging:** UC-5500 series is available in 1 gallon and 5 gallon kits.

##### **Flashpoint (T.C.C):**

UC-5500 Part A	23°F (-5°C)
UC-5500 Part B	91°F (33°C)
S-330 Solvent	24°F (-5°C)

#### **PHYSICAL DATA:**

Solid by wt.: Approx. 61%  
Solid by vol.: Approx. 51%  
Note: Solids vary with color.

Pot life: 4 hrs. @ 70°F  
Shelf life: 12 months @ 70°F in unopened containers.

**VISCOSITY:** 70-80 K.U. (Kreb Units)

**TEMPERATURE LIMITATION:** HERESITE UC-5500 accepts dry heat temperatures up to 350°F. Temperature excursions up to 400°F can be tolerated for short durations.

**VOC:** 3.7 lbs. / gal. as supplied.

**STANDARD COLOR:** UC-5502 Black  
UC-5504 Brown  
UC-5506 Gray  
UC-5510 White

Other colors available upon request

**COVERAGE:** Theoretical coverage - 816 sq. ft. per gallon per mil. At 4.5 mils DFT average coverage would be 145 sq. ft. per gallon.

#### **RECOMMENDED DRY FILM THICKNESS:**

2.5 mils per coat  
4-5 mils total dry film thickness

#### APPLICATION INSTRUCTIONS

These instructions are not intended to show product recommendations for specific service. They are issued as an aid in determining correct surface preparation, mixing instructions and application. It is assumed that the proper product recommendations have been made. These instructions should be followed closely to obtain the maximum service from the materials.

**CAUTION:** CONTAINS FLAMMABLE SOLVENTS. KEEP AWAY FROM SPARKS AND OPEN FLAMES. IN CONFINED AREAS WORKMEN MUST WEAR FRESH AIR LINE RESPIRATORS. HYPERSENSITIVE PERSONS SHOULD WEAR GLOVES OR USE PROTECTIVE CREAM. ALL ELECTRICAL EQUIPMENT AND INSTALLATIONS SHOULD BE MADE AND GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. IN AREAS WHERE EXPLOSION HAZARDS EXIST, WORKMEN SHOULD BE REQUIRED TO USE NONFERROUS TOOLS AND TO WEAR CONDUCTIVE AND NONSPARKING SHOES.

**SURFACE PREPARATION:** Remove all oil, grease and other contaminants. All seams should be continuously welded, weld splatter removed and all edges radiused. (See Bulletin #113, "Fabrication Specifications.")

**STEEL:** A commercial blast is acceptable in accordance with NACE #3 or SSPC-SP-6 specifications. Surface profile or anchor pattern shall be 20-25% of the recommended dry film thickness.

**CONCRETE:** Remove all protrusions by sanding or grinding. Concrete must be cured 28 days @ 70°F (21°C) and 50% relative humidity. Surfaces must be acid etched or abrasive blasted to remove laitance. Prime with UC-5400.

**PRIMER:** On steel: UC-5407 or VR-500 or CSE-6000; on concrete: UC-5400.

**MIXING:** Stir Part A thoroughly. Add the contents of Part B to the container of Part A. Mix thoroughly before using. (This mix ratio is 2 parts A to 1 part B by volume.) Mixed material must be used within 4 hours.

**THINNING:** The amount of thinner required is dependent upon temperature, ventilation, humidity; spray equipment used and desired film thickness. Suggested thinning at 75°F (24°C) is 15-20%.

#### EQUIPMENT:

1. All spray equipment shall be thoroughly cleaned and be free of old paint and other contaminants.
2. Use standard production type spray guns
3. Air supply shall be uncontaminated.

4. Airless spray equipment: 2200-2600 PSI liquid pressure. Tip size from .015" to .019". Thinning requirements are less than for conventional spray.

#### APPLICATION:

1. Do not apply if temperature is less than 5°F (2°C) above dewpoint.
2. Adjust air pressure to approx. 80 lbs. at the gun and provide 15-20# pot pressure. Adjust spray gun by first opening liquid valve and then adjust air valve to give approx. an 8"-12" fan.
3. Holding gun perpendicular to the surface at a distance of 12", apply a mist bonding pass.
4. Allow to flash off for several minutes, but not long enough to allow film to completely dry.
5. Apply 3-4 criss-cross multi-passes maintaining a wet appearing film.
6. Repeat step #5 until desired film thickness is obtained.
7. Clean equipment immediately with HERESITE S-330 solvent.
8. Let first coat air dry with ventilation for approx. 16 hrs.
9. For second coat, repeat steps #1-#7.
10. Coating should be allowed to cure according to the following.  
70°F (21°C) - 7 days  
50°F (10°C) - 14 days

#### FORCE CURE:

1. If force curing is required, air dry with ventilation for approx. 2 hrs.
2. After air dry period has elapsed the temperature should be raised in 40°F (22°C) increments every 30 minutes.
3. Hold at desired curing temperature according to the following:  
130°F (55°C) - 8 hours  
190°F (82°C) - 2 hours