

HERESITE UC-5500 SERIES

OUR 50 YEARS OF COATING HISTORY SPEAKS FOR ITSELF.

In 1964, Heresite was the first company to apply coatings to aluminum-finned, copper-tubed heat exchangers. The Heresite coating became then, and still remains a standard in the industrial coatings industry. We provide the highest quality protective coatings for air conditioning and refrigeration systems that operate in moderate to severely corrosive environments, including both coastal and/or industrial applications.

A HIGH PERFORMANCE POLYURETHANE SPECIALLY DESIGNED TO PROVIDE SUPERIOR PERFORMANCE IN DEMANDING ENVIRONMENTS.

UC-5500 is formulated as a top coat for other Heresite Coatings. It exhibits outstanding UV resistance with excellent weathering qualities, along with good flexibility and good abrasion resistance. This two component coating is typically sprayed on the exterior surfaces of heat exchangers and related equipment, process equipment, transport vessels, tanks and structural steel.

UC-5500 SERIES SPECIFICATIONS

Abrasion Resistance: ASTM D 4060:

No more than 165 mg loss CS-17 Wheel 1kg load, 1000 cycles

Cyclic Weathering: ASTM G 85 Annex A5:

At 2,000 hours no face blistering, no face rusting. 0–2.5 mm scribe creepage.

Corrosion Resistance: ASTM B 117-94:

At 1,500 hours No face blistering, no face rusting. 0–2.5 mm scribe creepage.

Adhesion – Crosshatch: ASTM D 3359
5B

Adhesion – Elcometer: ASTM D 4541
1100+ PSI

Exterior Exposure: ASTM D 1014-83
Miami, FL, 97% gloss retention after 12 months.

Flexibility: ASTM D 522
No cracking or delamination of film after full cure.

QUV: ASTM D 4587
1,000 hours, passes

Pencil Hardness: ASTM D 3363-74 2B–
HB

Heat Resistance: ASTM D 2485
Passes at 250°F (121°C)

Impact Resistance: ASTM 2794
Direct 100 in./lbs., Reverse 30 in./lbs

PRODUCT DESCRIPTION

High Solids Acrylic Polyurethane

RECOMMENDED USES

Heresite UC-5500 series is recommended as a topcoat for Heresite P-413 and VR-514 series products to protect against direct sunlight exposure. This topcoat was specifically designed to protect heat transfer surfaces and related equipment.

CHEMICAL RESISTANCE

See chemical resistant guide at the end of the document.

PACKAGING INFORMATION

UC-5500 series is available in one-gallon kits. Both Part A and Part B are provided in short-filled cans, allowing for accurate and easy mixing.

THINNERS AND CLEANUP

Heresite S-550 can be used for thinning.
Heresite S-275 or S-550 can be used for cleanup.

STORAGE CONDITIONS

Coating should not be stored longer than 2 years.
Coating should be stored in a clean, dry environment at 50–75°F. Keep out of direct sunlight. Avoid excessive heat and keep from freezing.

PHYSICAL PROPERTIES

Solids by weight: Approximately 75%
Solids by volume: Approximately 62%
Pot life: 3 hours at 70°F (21°C) and 50% relative humidity. Extreme temperature or humidity can drastically change pot life.
Induction Time: None
Mixing Ratio by Volume: 9 parts resin to 1 part cure
Shelf life: 2 years
Color: Black, Gray, Red and Brown available

VOC CONTENT

2.63–2.83 lbs/gal (270 g/L) less exempt solvents, as supplied

FILM THICKNESS

Dry Film Thickness for non-heat transfer equipment:
2.0–3.0 mils

Dry Film Thickness for heat transfer equipment:
1.0–2.0 mils

COVERAGE

Theoretical coverage is 994 square feet per gallon per dry mil. Coverage rates are estimates and make no allowance for material loss. Actual rates will vary dependent on application method, surfaces, etc.

SURFACE PREPARATION

All surfaces must be clean, sound, and free of any oils, dirt, grease, wax and any other contamination that may interfere with coating adhesion. For best results all bare surfaces must be properly prepared and primed prior to application of this product.

It is recommended to apply a primer of Heresite VR-514 or Heresite P-413.

Previously Painted Metal Surfaces:

Power or hand washing is recommended to remove contamination. If oil or grease is present, a cleaner would be required — ensure cleaner is compatible with paint. Cleaner should be completely rinsed. All part completely dry before application of product. Remove all loose coatings, rust and corrosion by scraping, sanding or sand blasting. In cases where there is a large amount of contamination, a commercial blast is acceptable in accordance with NACE #3 or SSPC-SP-6-63 specifications

THINNING

If applying via HVLP or conventional spray equipment, thinning may be required. A maximum of 20 fl. ounces of S-550 per gallon of combined Part A and Part B may be used. Do not exceed this recommendation otherwise performance and cure can be impacted. VOC will be impacted with the addition of S-550.

APPLICATION

Part A and Part B are packaged in premeasured kits – with Part A being a short-filled gallon, allowing Part B to be added and mixed. The mixing ratio is 9 parts A to 1 part B. Mix Part A and Part B separately using an explosion-proof power drill and blade type mixer. Add part B to Part A and thoroughly mix and blend using an explosion-proof power drill and blade type mixer. Mix only the amount that can be used within the estimated pot life. For optimum application, air and surface temperature should be from 10 to 32°C and at least 5°F above the dew point. Above 50°C, sagging may occur.

Spray application is preferred.

Flush lines with an appropriate solvent. Equipment must be clean prior to start. Apply the product in even coats and maintain a wet edge. Use parallel passes with 50% overlap to avoid bare areas and pinholes. If required, cross spray at right angles.

Use standard production type spray equipment (conventional, HVLP, airless, etc.). A few starting recommendations can be found below:

Guns	Fluid	Air
DeVilbiss JGA-510	E	46MP
Binks #2100	67-SS	46-21MD-2 or 3
Binks #95	66-SS	66-SD
Graco Air Pro HVLP		

DRYING TIME

Drying Time	At 90°F (32°C)	At 70°F (21°C)	At 50°F (10°C)
Set to Touch	30 minutes	1.5 hours	1.5 hours
Dry Through	4 hours	5 hours	10 hours
Recoat Time - Minimum	4 hours	5 hours	10 hours
Recoat Time - Maximum	7 days	30 days	60 days

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 WORKERS MUST WEAR FRESH AIR LINE RESPIRATORS. 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, WORKMERS SHOULD BE REQUIRED TO USE NONFERROUS TOOLS AND TO WEAR CONDUCTIVE AND NONSPARKING SHOES.

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CHEMICAL RESISTANCE FOR SPLASH

Solvents	Rating	Acid	Rating	Oils	Rating	Miscellaneous	Rating
MEK	VG	Acetic Acid 5%	E	Dirty Motor Oil	VG	Bleach	E
Toluene	VG	Acetic Acid 10%	E	Brake Fluid	VG	Dowanol PM	VG
Xylene	VG	Sulfuric Acid 5%	E	Skydrol	VG	Water	E
Unleaded Gas	VG	Sulfuric Acid 10%	E	Diesel Fuel	E	Hydrogen Peroxide 3%	E
Denatured Alcohol	E	Sulfuric Acid 50%	E	Aviation Hydraulic Fluid	G	Povidone Iodine 10%	G
Methanol	VG	Hydrochloric Acid 5%	E	10W30	E	TSP 1%	E
Mineral Spirits	E	Hydrochloric Acid 10%	E	Aircraft Motor Oil	E	E TSP 10%	E
Triethylamine	VG	Hydrochloric Acid 37%	VG	Disc Brake Fluid	G	Windex w/ ammonia	E
N-Butanol	VG	Phosphoric Acid 10%	E			Pot Ash	E
MIBK	VG	Phosphoric Acid 50%	E	Salts and Bases	Rating	Phosphate Fertilizer	E
Phenol PM Acetate 5%	G	Phosphoric Acid 85%	E	Sodium Hydroxide 10%	E	Nitrogen Fertilizer 28%	E
Isopropyl Alcohol	E	Oleic	E	Sodium Hydroxide 50%	E		
Butyl Cellosolve	VG			Ammonium Hydroxide 10%	E		
Perchloroethylene	VG			Ammonium Hydroxide 28%	E		
Ethylene Glycol	E						

Rating: E – Excellent, VG – Very Good, G – Good, N/R – Not Recommended

The chemical ratings in the above table is indicative for general resistance to periodic chemical splash and spillage.

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