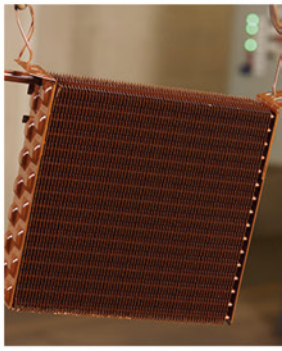
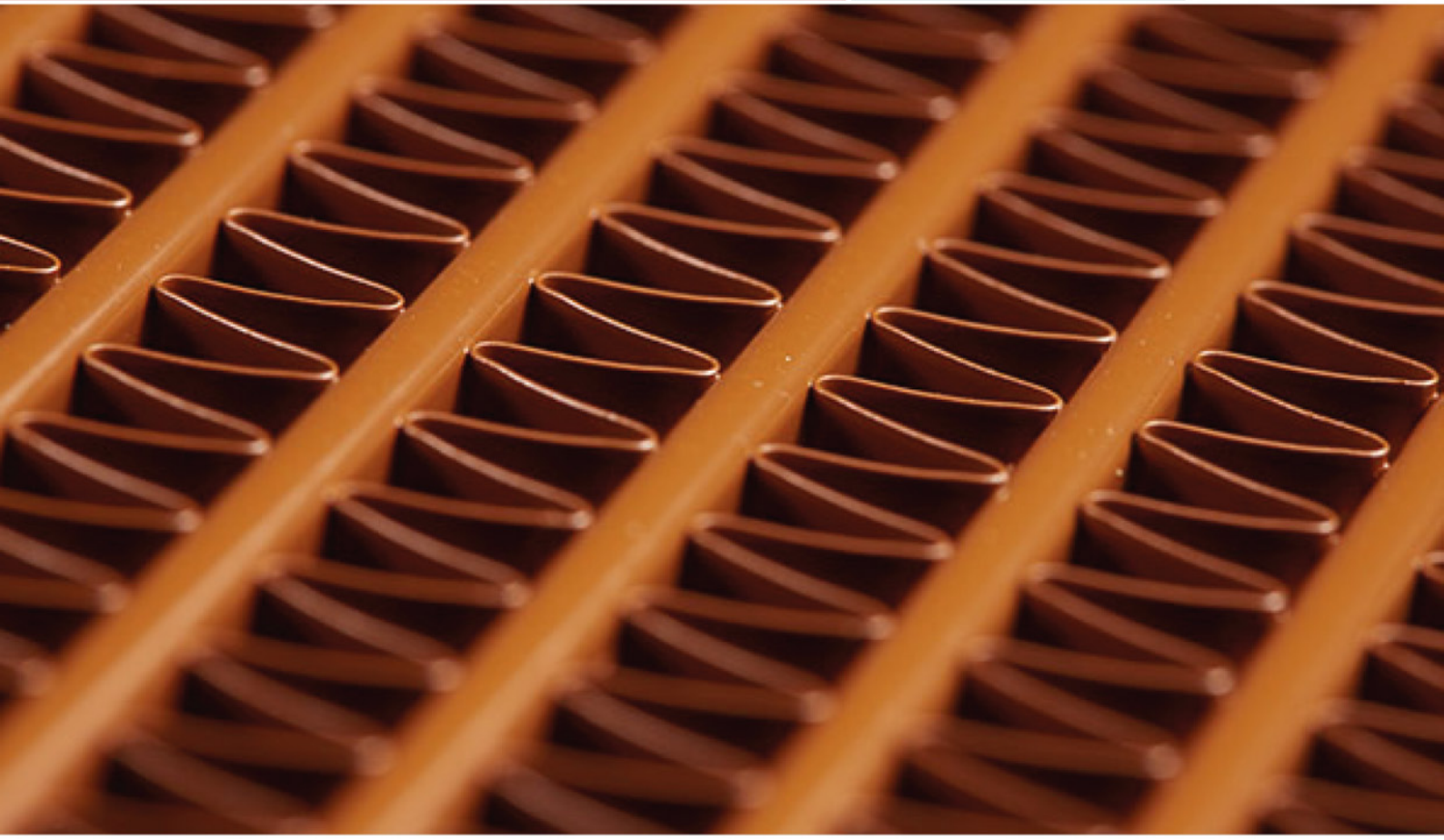
COATING SOLUTIONS FOR HVAC-R

Coatings for **Heating, Ventilation, Air Conditioning and Refrigeration**





HERESITE®
PROTECTIVE COATINGS

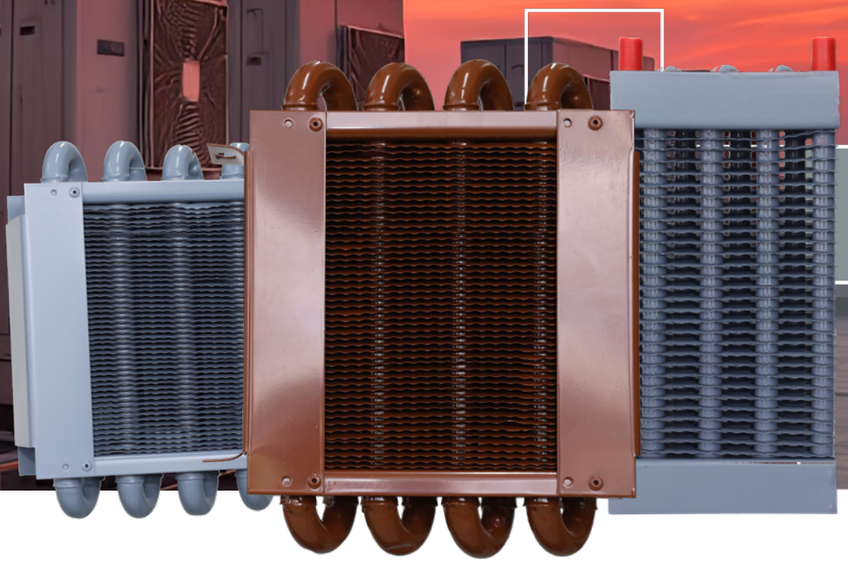
Coating Solutions for HVAC-R

Coatings for all situations

Heresite offers a complete line of high-performance specialty coatings for the HVAC-R (Heating, Ventilation, Air Conditioning and Refrigeration) segment.

These unique coatings increase equipment performance and extend its service life, with heat transfer loss of less than 1%, especially in industrial applications.

HERESITE
PROTECTIVE COATINGS



UNPARALLELED PROTECTION WITHOUT COMPROMISING HEAT TRANSFER

Regardless of the application or the severity of the environment, **Heresite Protective Coatings** offers the broadest line of protective coatings to meet your needs. From dip and oven-cured coatings to the convenience of spray application, our team of experts is ready to provide a complete solution for your equipment.

COILS TO CABINETS. ALUMINUM, COPPER, OR GALVANIZED. OFFSHORE OR CHEMICAL. **HERESITE** HAS YOU COVERED.

Heresite provides comprehensive solutions for protecting HVAC-R assets in harsh environments such as the oil and gas and water treatment industries.

Founded in 1935 and headquartered in Wisconsin, United States, Heresite has a strong international presence. Recognized as the first company to offer anti-corrosive coatings for HVAC-R systems, with a focus on performance through innovation. Whether in commercial or industrial environments, Heresite coatings outperform the competition, increasing return on investment and ensuring total protection.

HERESITE
PROTECTIVE COATINGS

HERESHIELD – WATER-BASED AIR-DRY COATING

This spray applied single component coating is typically applied to new or unfinished metal on the internal and external surfaces of HVAC-R heat exchangers and related equipment.

Solids by Volume	Thickness	Salt Spray
25%	20 - 30 microns	**22,000 hours**

Application	Surface Preparation	Product
▪ Copper ▪ Aluminum	▪ Sandblasting ▪ Cleaning	Water-based

- *Air-dry single component coating;*
- *Application by spray, immersion or flooding;*
- *Ultra-fast drying;*
- *Excellent chemical resistance;*
- *Low to medium aggressive chemical environments;*
- *Less than 1% influence on heat exchange;*
- *Great ecological alternative to galvanization, in line with ESG practices. Can be considered a substitute for e-coat, with better performance (evaluate part geometry).*

HERESITE
PROTECTIVE COATINGS

PRODUCT DESCRIPTION
Air-Dry Water-Based Acrylic.

RECOMMENDED USES
Direct-to-metal high-performance coating specially formulated for marine / saltwater environments and used principally to protect heat transfer equipment and components.

CHEMICAL RESISTANCE
HereShield is splash resistant to a range of acids and inorganic salts. See *page 7* for testing results.

PACKAGING INFORMATION
HereShield is available in one-gallon (3.8 liter) and five- gallon (18.9 liter) quantities.

THINNERS AND CLEANUP
No thinning is required for this material. Agitating will cause coating to become thinner in viscosity. If required to thin beyond normal viscosity range, Type IV Deionized water can be used in small amounts (ASTM D1193).

Deionized water can be used to clean up wet coating material, followed by acetone for residual material.

STORAGE CONDITIONS
Coating should not be stored longer than 2 years from date of manufacture. Coating should be stored in a clean, dry environment at 50–75°F (10-24°C) in original, sealed containers. Keep out of direct sunlight. Avoid excessive heat and keep from freezing. Product may be shipped with freeze indicator, which indicates only that risk temperatures were reached; coating may still be usable. Call Heresite if freeze indicators are activated prior to opening shipment.

FILM THICKNESS
For all surfaces, a typical DFT of 0.8 – 1.2 mils (20 – 30 microns), achieved with 3.0 – 5.0 wet mils (75 – 125 microns).

COVERAGE
Theoretical coverage is approximately 400 square feet per gallon per 1 dry mil (approximately 10 square meters per 1 liter per 25 microns). Coverage rates are estimates and make no allowance for material loss. Actual rates will vary dependent on application method, surfaces, etc.

CURING/DRYING
Air dry:
The coil should be dry to touch within 5 hours of final application at ambient temperatures of 68-77°F (20-25°C). Warmer temperatures will enhance drying time; cooler temperatures will lengthen the drying time. Coil should be dry to handle after 48 hours at ambient temperatures.

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.

In general, for new construction, the surface should be prepared with a neutral (pH of 8-9) solventized heavy duty cleaner followed by a thorough hot water rinse. Cleaners that leave little to no residue on the final surface are best. All surfaces must be dry and free of residue or debris prior to application of coating.

Because each situation is unique and has multiple variables (type and degree of contamination, etc.), the end user must validate the recommended cleaning regimen, ensuring that acceptable appearance and adhesion are achieved.

THINNING
No thinning is required for this material. Agitating will cause coating to become thinner in viscosity. If required to thin beyond normal viscosity range, Type IV Deionized water can be used in small amounts (ASTM D1193).

HERESITE P-413 BAKED PHENOLIC EPOXY

Made for the most severe chemical and C5 offshore environments. Features dense cross linking with superior chemical and salt air resistance providing stable heat transfer.

Solids by Volume	Thickness	Salt Spray
57%	20 - 30 microns	**30,000 hours**

Application	Surface Preparation	Product
▪ Copper ▪ Aluminum	▪ Sandblasting ▪ Cleaning	Solvent based

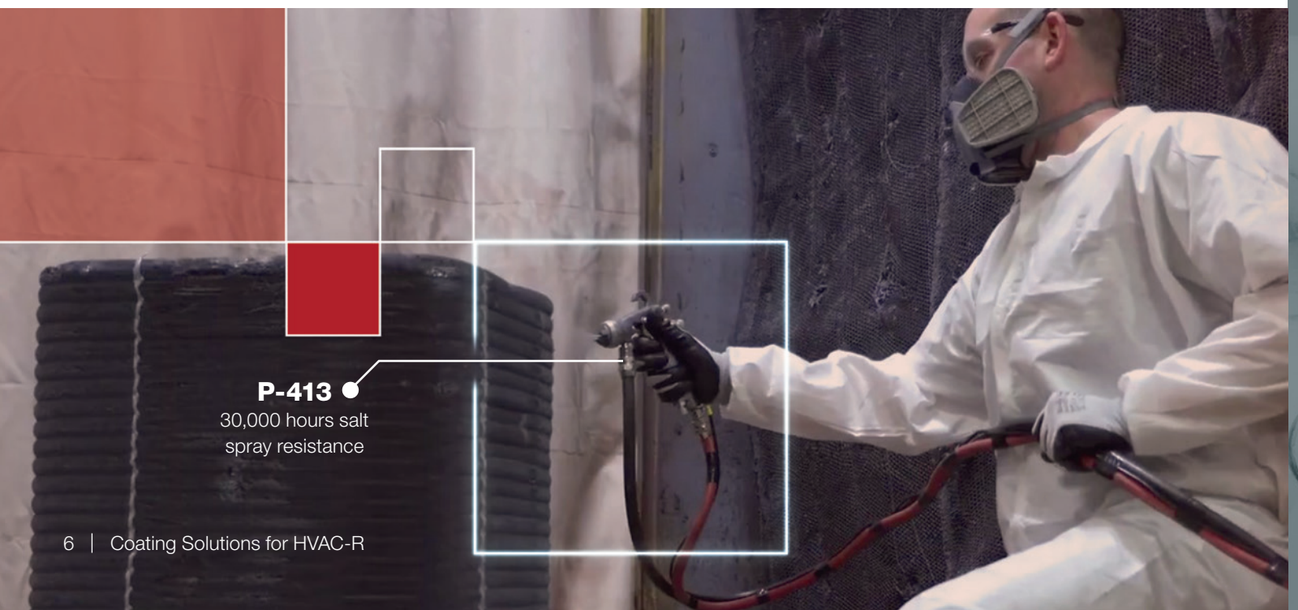
- *High-performance coating with low thickness;*
- *Application by spray, immersion or flooding;*
- *Cures in 20 minutes at 200 °C;*
- *Significantly extends the service life of HVAC-R systems;*
- *Can be considered a replacement for e-coat, with better performance (evaluate part geometry);*
- *It is the first HVAC-R coil and radiator coating to meet ISO 12944-9 for severe offshore maritime environments;*
- *Can be used for dual function. In case of finishing, consult the factory to assess system compatibility.*

RECOMMENDED USES

- Radiators;
- Heat exchangers;
- Transformers;
- Equipment with aluminum or copper substrate that requires high anti-corrosive protection.

HIGH PERFORMANCE

A thin film increase equipment performance while having less than 1% heat transfer loss. Immersion application ensures complete coverage of the equipment.



HERESITE PROTECTIVE COATINGS

COATING CHOICES TO FIT YOUR NEEDS

	P-413	HereShield WB-506
Chemistry	Phenolic Epoxy	Acrylic
Cure Mechanism	Oven Cure	Air-Dry
Method of Application	Immersion, flow, or spray	Spray
Cyclic offshore (ISO 12944-9)	Pass 25 weeks (4,200 hrs.)	Pass 25 weeks (4,200 hrs.)
Static Salt Spray (ASTM B117; hours)	30,000+	22,000+
Humidity (ASTM D4585; hours)	5,000+	5,000+
QUV (ASTM D4587; hours)	3,000+ (with UC-5500)	2,000+
QUV-C Sterilizer (hours)	1,500	3,000
ASTM G85, Annex 3 (SWAAT)	3,000+ hours	No data available
Solvent Resistance (ASTM D5402; MEK rubs)	100+	<10
Adhesion (ASTM D3359)	5B	5B
Flexibility (ASTM D522)	passes 1/4”	passes 1/8”
Pencil Hardness (ASTM D3363)	5H - 6H	2B
Temperature Limitation	400F (204C)	200F (93C)
DFT (mils)	1.0 - 1.5	0.8 - 1.2
Chemical Resistance	Immersion and fumes	Fumes
NSF	Yes, effective 10/9/2017	Approvable
VOC (lbs./gallon; as applied)	2.3	1.0

HERESHIELD - CHEMICAL RESISTANCE FOR SPLASH

Solvents	Rating	Acid	Rating	Miscellaneous	Rating
MEK	VG	Sulfuric Acid 5%	E	Bleach- 5% sodium hypochlorite	E
Mineral Spirits	E	Sulfuric Acid 10%	VG	Pool Shock 12.5% sodium hypochlorite	VG
WD-40	E	Citric Acid 50%	E	Water	E
Propylene Glyol	E	Hydrochloric Acid 5%	VG	Windex w/ ammonia	E
Acetone	VG	Hydrochloric Acid 10%	G	Sodium Tetraborate 10% solution	G
Ethanol 40%	VG			Wasp and Hornet Killer Spray (aerosol)	E
PM Solvent	G	**Salts and Bases:**	**Rating**	Hydrogen Peroxide 3%	E
Isopropyl Alcohol	VG	Sodium Hydroxide 10%	E		
Xylene	G	Sodium Hydroxide 50%	E		
Oils:	**Rating**	Ammonium Hydroxide 28%	E		
Dirty Motor Oil	E	Sodium Chloride 15% solution	E		
Motorcraft Brake Fluid	G				
10W30 motor oil	E				

Rating: E – Excellent, VG – Very Good, G – Good

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

HERESITE®
PROTECTIVE COATINGS

WEG Coatings LLC
815 and 825 East Albert Drive
Manitowoc, Wisconsin | USA
sales@heresite.com | +1 (920) 684 6646
heresite.com

WEG Tintas Ltda
Rod. BR 280 km 50, 6918, Bloco A, Caixa D´água
Guaramirim, SC | Brazil
tintas@weg.net | +55 (47) 3276 4000

Rev: 01 | Date: 07/2025