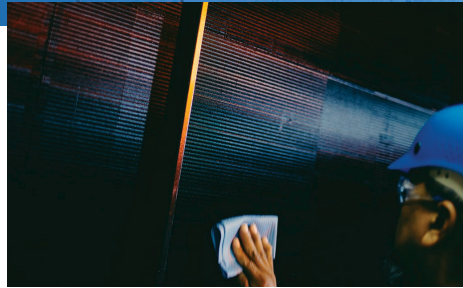


ElectroFin[®] heat transfer coatings

Factory-Applied Corrosion-Resistant Coil Coating

Recognized worldwide, ElectroFin[®] E-coat is the industry standard offering the best protection available. ElectroFin[®] E-coat a proprietary coating that offers today's heat transfer coils the highest level of corrosion resistance providing long-term protection that helps reduce maintenance and operating costs. Have confidence these products have the highest quality standards and pass the most arduous industry tests ensuring top performing products you can trust.



- ElectroFin[®] E-coat is a water-based, flexible epoxy polymer coating process engineered specifically for HVAC/R heat transfer coils with the application.
- ElectroFin[®] uses a PPG POWERCRON[®] e-coat formulation specifically designed to provide excellent edge coverage and the thinnest coating offered, (between 0.6 and 1.2 mils.)
- Designed to protect the coil with less than 1% thermal performance degradation.
- ElectroFin[®] E-coat is REACH, RoHS, PFAS, SVHC, PBT's compliant and has NSF Certification - Approved food zone.
- Excellent corrosion resistance makes it an ideal choice for coastal salt-laden and industrial environments. E-coat coated coils are tested and pass ASTM B117 Salt Spray tests exceeding 15,000 hours.
- ElectroFin[®] E-coat coils have passed ASTM G85 A3 (SWAAT) testing using pressurized heat exchangers exceeding 3,000 hours.
- ElectroFin[®] E-coat offers a base 5-year warranty with extended service available through our EFINSM Pro ShieldTM program – a multi-layer coating protection program offering 5, 7 & 10 years of warranty protection.
- The only process to guarantee 100% coil coverage without bridging, including enhanced fins up to 30 fins per inch.

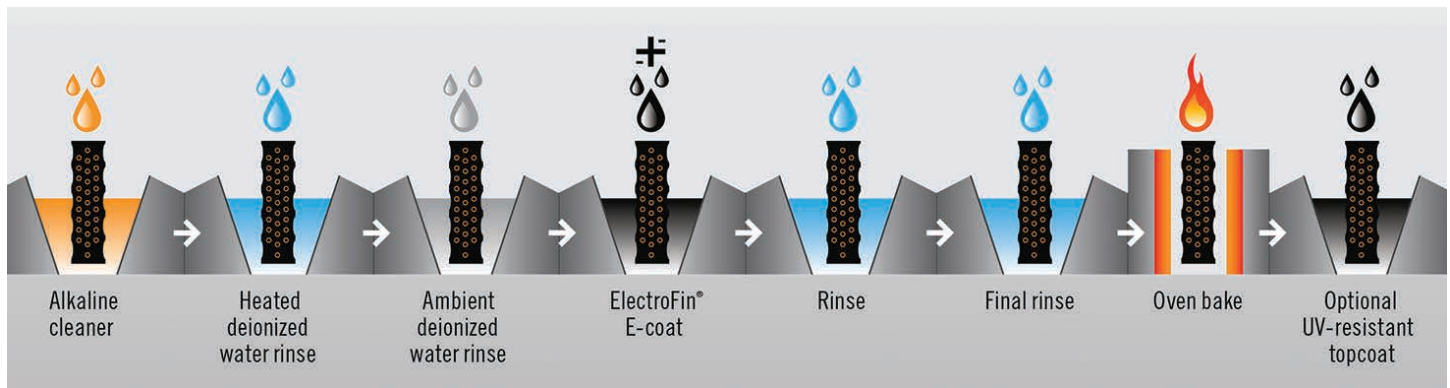
ELECTROFIN[®] E-COAT TECHNOLOGY

Our unique process provides an electro-deposition coating that involves epoxy paint particles evenly suspended in deionized water. When the E-coat immersion bath is electrically charged and energized, the epoxy paint particles are drawn to and attach with aluminum, copper, and other conductive metal surfaces that form the heat exchanger coils or casings.

This unique phenomenon is particularly important for tiny cavities where fin and tube joints, high fin densities, and enhanced fins are present. The charged molecules are drawn to the metal and form an even, continuous film over the entire surface. This coating process creates a smooth, consistent, and flexible coating that penetrates deep into all coil cavities and covers the entire coil assembly, including the fin edges.

The Best Total Corrosion Protection
SPECIFY ELECTROFIN[®] E-COAT

ELECTROFIN® E-COAT PROCESS



SPECIFICATIONS

Coil will have a flexible epoxy polymer e-coat uniformly applied to all coil surface areas with no material bridging between fins. The coating process will ensure complete coil encapsulation and a uniform dry film thickness from 0.6 – 1.2 mils on all surface areas (including fin edges) and meet 5B rating cross-hatch adhesion per ASTM B3359.

Coils subjected to ultraviolet (UV) exposure will receive a spray-applied, UV-resistant topcoat to prevent UV degradation of epoxy e-coat film.

CORROSION RESISTANCE

ElectroFin® E-coat is ideally suited for coastal and industrial areas with high humidity and an aggressive atmosphere, such as nuclear and power plants, refineries, steam turbines, WWT facilities and buildings or areas with high condensation and high pollution. CX certification now offers protection for direct coastal and offshore areas with high salinity.

RESISTANCE TO UV DEGRADATION

ElectroFin® E-coat demonstrates exceptional technical properties in ASTM, ISO, DIN and MIL-STD testing for resistance to thermal loss, UV degradation, and moisture intrusion. Continuous testing is carried out to assure that performance continues to meet or exceed established standards.

PROVEN EFFECTIVE

The electro-deposition process is the most automatic, controllable, and efficient method for applying a corrosion inhibiting coating to a metallic workpiece. The process dictates that all metal surfaces are coated in an even, uniform finish.

TECHNICAL PERFORMANCE

PROPERTY	TEST METHOD	PERFORMANCE
Salt Spray	ASTM B117	15,000+ hours
SWAAT	ASTM G85-A3	3,000 hours
Cross Hatch Adhesion	ASTM D3359	5B
Pencil Hardness	ASTM D3363	2H
Dry Film Thickness	ASTM D7091	0.6-1.2 mils / 15-30 µm
Direct Impact	ASTM D2794	Passed 160#
Humidity	ASTM D2247	1,000 hours
C5-I Saturated Condensation	ISO 6270	Pass C5-M
C5-I Salt Spray	ISO 7523	Pass C5-M
C5-I Chemical Resistance	ISO 28212-1	Pass C5-M
CX Certification	ISO 12944-9	Pass 4200 hours cyclic

ELECTROFIN® E-COAT AS COMPARED TO OTHER ALTERNATIVES

	ElectroFin® E-Coat	Dip Phenolics	Elastomerics	Other E-Coats
Application Method	Complete Immersion Cathodic Deposition	Manual Dip or Flow	Manual Dip or Flow	Anodic or Cathodic Deposition
Flexibility	Excellent	Poor-Good	Excellent	Good
Coating Uniformity	Computer-controlled Consistent (0.6-1.2 mils)	Manual Inconsistent (2-6 mils)	Manual Inconsistent (2-6 mils)	Inconsistent (0.4-1.5 mils)
Coating Penetration	Computer-controlled Consistent	Uncontrolled/Potentially Inconsistent	Uncontrolled/Potentially Inconsistent	Inconsistent to Bare Metal
Bridging	None – up to 30 fpi & 16 rows	Limited to 16 fpi with some bridging	Limited to 14 fpi with some bridging	Limited to 14 fpi with some bridging
Thermal Loss	< 1%	2% – 6%	2% – 6%	1% – 4%

MODINE
Coatings

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1423 West Ormsby Avenue
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