



Luvata Insitu® Spray-Applied Corrosion-Resistant Coil and Cabinet Coating

Luvata Insitu® is a water-based (solvent free) and water-reducible synthetic flexible polymer coating engineered specifically for HVAC/R heat transfer coils and components. Luvata Insitu® is applied at our facilities or on-site after the units have been manufactured.

Benefits of Luvata Insitu®:

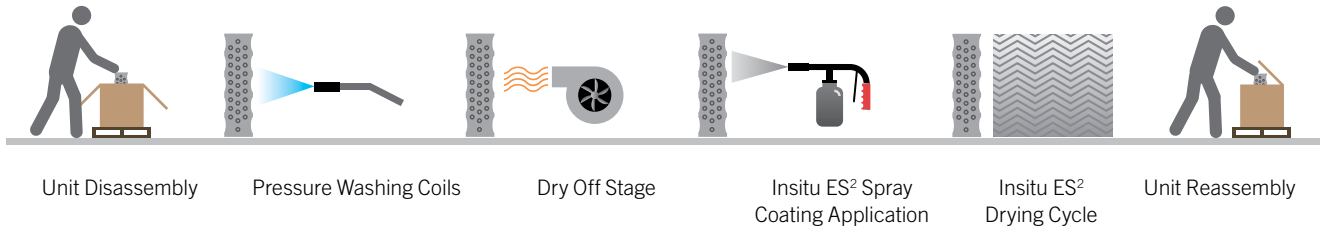
- Increase operating efficiency
- Reduce maintenance and operating costs
- Extend the service life of HVAC/R systems
- Resists corrosion, ultraviolet rays and moisture
- Protects both round tube and micro-channel coil designs
- Post-manufacturing solution



About Luvata

Luvata is a world leader in metal solutions manufacturing and related engineering services. Luvata's solutions are used in industries such as renewable energy, power generation, automotive, medicine, air-conditioning, industrial refrigeration, and consumer products. The company's continued success is attributed to its longevity, technological excellence and strategy of building partnerships beyond metals. Employing over 6,400 staff in 16 countries, Luvata works in partnership with customers such as Siemens, Toyota, CERN, and DWD International.

Spray-applied Insitu® Process



Specifications

Luvata Insitu® contains ES² (embedded stainless steel pigment) technology, an anticorrosion coating specifically designed for the protection of coils mounted in corrosive areas. Coils will have a permanent, water-based synthetic coating with ES² pigment applied to all coating surface areas without material bridging between fins. The coating process will ensure a uniform dry film thickness of 0.6-1.2 mils and meet 5B rating crosshatch adhesion per ASTM D3359-93. Corrosion durability will meet a minimum 5,000 hours salt spray resistance per ASTM B117.

Resistance to Corrosion

ES² pigments are made from a high-performance stainless alloy which is resistant to corrosive conditions. ES² pigments are therefore suitable for even the most corrosive environments, and will maintain their appearance after many years of exposure.

Resistance to UV Degradation

ES² pigments form a multi-layer structure throughout the paint film. This creates a barrier layer which reflects sunlight away from the paint film, and prevents ultraviolet rays from penetrating. As a result, UV degradation of individual polymer molecules is eliminated, the film integrity is maintained, and the pigment particles are well anchored to the substrate. The resultant smooth, hard finish stops dirt from accumulating.

Resistance to Moisture

The multi-layer structure of the ES² pigments slows the passage of water molecules into the film and acts as an effective moisture barrier. This prevents the subsequent swelling and deterioration of the protective film.

Technical Performance

Test	Standard	Qualification
Salt Spray	ASTM B117	Exceeds 5,000 hours
Water Immersion	ASTM D870	3 months
Pencil Hardness	ASTM D3363	HB-F
Crosshatch Adhesion	ASTM D3359	5B
Humidity	ASTM D2247	500 hours
UV Resistance	ASTM D4587	500 hours
Mandrel Bend (Flexibility)	ASTM D522	Passed 1/8 inch
Mold Resistance	ASTM G21	Passed
Sand & Dust Resistance	MIL-STD 810F	Passed

Ideal applications for Luvata Insitu®

- Coils (water, condenser, evaporator, DX)
- Mini-splits
- Packaged Rooftops
- Condensing Units
- Modular Air-handlers
- Air-cooled Chillers
- Interior & exterior HVAC cabinetry and copper piping

Advantages of Luvata Insitu®

- Unparalleled customer service
- Applied by Luvata-certified technicians
- Short lead-time of 5-7 days standard
- Crane off-load
- Local pick up and delivery available
- On-site application available
- Modern, fully-licensed and permitted facilities

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