Insitu® coil and cabinet protection

MODINE®

TECHNICAL DATA SHEET

GENERAL DESCRIPTION
– SUBJECT TO CHANGES OR DEVIATIONS

Insitu® EX Spray Coat, Spray-Applied, Anti-Corrosion Components and Cabinet Coating for Extreme Environments

PRODUCT DESCRIPTION

Insitu® EX Spray Coat is a water-based and water reducible synthetic flexible polymer anti-corrosion coating system specifically designed for the protection of HVAC&R cabinetry and components. Insitu® is formulated to improve adhesion, moisture resistance, UV protection, and corrosion durability. The product is applied at our facilities or on-site at your premises after HVAC&R units have been manufactured.

SPECIFICATIONS

HVAC/R cabinets and optional internal HVAC components shall have a water-based synthetic polymer primer and finish coat spray-applied with no runs or sags. The spray coating process will ensure a uniform dry film thickness of 30-71 µm (1.2-2.8 mils) and meet 5B rating crosshatch adhesion per ASTM D3359. Corrosion durability will be confirmed through testing to no less than 10,000 hours salt spray resistance per DIN 53167 (ASTM B117) using aluminum test coupons.

APPLICATIONS IDEALLY SUITED FOR INSITU® SPRAY COAT

- Mini-splits
- Packaged Rooftops
- Condensing Units
- Modular Air-handlers
- Air-cooled Chillers
- Interior & exterior HVAC cabinetry and copper piping

TECHNICAL PROPERTIES

PROPERTY	TEST METHOD	PERFORMANCE
Salt Spray	DIN 53167/ASTM B117	Exceeds 10,000 hours
Water Immersion	ASTM D870	1000 hours minimum
Pencil Hardness	ASTM D3363	HB-F
Cross Hatch Adhesion	ASTM D3359	5B
Humidity	ASTM D2247	1000 hours minimum
UV Resistance	ASTM D4587	1000 hours minimum
Mandrel Bend (Flexibility)	ASTM D522M	Pass

RESISTANCE TO:

CORROSION RESISTANCE

Insitu® EX has a very robust synthetic multi-polymer resin backbone that is suitable for even the most corrosive environments and will maintain their appearance after many years exposure.

UV DEGRADATION

Built-in UV inhibitors form a protective barrier layer which reflects sunlight away from the paint film preventing 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.

MOISTURE

The multi-layer structure of the ES^2 pigments slows the passage of water molecules into the film and acts as an effective moisture barrier. This prevents subsequent swelling and deterioration of the protective film.