Insitu® coil and cabinet protection

MODINE®

TECHNICAL DATA SHEET

GENERAL DESCRIPTION
– SUBJECT TO CHANGES OR DEVIATIONS

Insitu® Black Spray Applied, Anti-Corrosion Coil and Components Coating

APPLICATIONS IDEALLY SUITED FOR INSITU® BLACK SPRAY APPLIED COATING

- VRF/Mini-splits
- Packaged Rooftops
- Condensing Units
- Modular Air-handlers
- Air-cooled Chillers

PRODUCT DESCRIPTION

Insitu® Black Spray Applied Coating is a water-based and water reducible synthetic flexible polymer anti-corrosion coating specifically designed for the protection of HVAC&R coils and components. Insitu® Black Spray Applied Coating is formulated to improve corrosion performance, UV protection, moisture resistance, and adhesion.

SPECIFICATIONS

Heat exchanger (HX) coils shall have a water-based synthetic polymer coating with no material bridging between fins. The spray applied coating process will ensure a uniform dry film thickness of 15-30 µm (0.6-1.2 mils) and meet 5B cross hatch adhesion per ASTM D3359. Corrosion durability has been confirmed through testing to greater that 15,000 hours ASTM B117 salt spray using aluminum test coupons.

TECHNICAL PROPERTIES

PROPERTY	TEST METHOD	PERFORMANCE
Salt Spray	ASTM B117	Exceeds 15,000 hours
Mandrel Bend (Flexibility)	ASTM D522M	Pass 1/4”
Pencil Hardness	ASTM D3363	HB
Cross Hatch Adhesion	ASTM D3359	5B
Humidity	ASTM D2247	1,000 hours minimum
SWAAT	ASTM G85 A3	Exceeds 2,400 hours
UV Resistance	ASTM D4587	1,000 hours minimum
UV Resistance	ASTM G155 XENON	2,000 hours
C5-I Continuous Condensation	ISO 6270	Pass
C5-I Salt Spray	ISO 7523	Pass
C5-I Chemical Resistance	ISO 2812-1	Pass
Direct Impact	ASTM D2794	Pass 160#

RESISTANCE TO:

UV DEGRADATION

Insitu® Black UV Topcoat has a very robust synthetic multi-polymer blend carrying engineered UV inhibitors to 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 adhesion promoters allows for superior inter-coat adhesion to the ElectroFin® E-Coat. The result is a smooth durable corrosion resistant UV protective finish.

MOISTURE

The multi-layer structure of the Insitu® Black UV Topcoat 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.

GLOSS RETENTION

A high gloss finish is applied that is smooth, limits dirt and debris buildup, and allows for easy equipment cleaning.