



HVAC Anti-Corrosion Coating and Energy Reduction System



Unit left unprotected. Installed Spring 2021.



Coated with SIMIX Multi-Surface Ceramic Clearcoat. Installed Spring 2022.

Two homeowners in a Tampa Bay, FL community (1/4 mile from ocean) installed new AC units one year apart. One coated their unit with SIMIX to protect from salt air and acid rain damage and to improve efficiency.

The SIMIX 2-Step Cleaner & Ceramic Clearcoat System improves the ability of any new or old unit to produce dramatically colder and fresher air and to stop further deterioration.



- Prevents salt and acid rain damage
- Reduces your energy usage 12–24%
- Destroys all foul musty odors
- Payback in 4–10 months

A New Standard in Efficiency, Protection, and Air Quality

**Prevents salt and acid rain damage extending the life of your units
Lowers your energy bill • Destroys all foul musty odors**

SUBJECT: Evaluation of Coated Test Panels after Accelerated Exposure

We met with 22 HVAC manufacturers at a recent AHR show. In order to recommend our coating they asked for a third party salt test.

The laboratory testing consisted of exposing the test panels to a cyclic accelerated weathering environment for 1008 hours (6 weeks) as described in ASTM D5894-21, "Standard Practice for Cyclic Salt Fog/UV Exposure of Painted Metal". The results achieved the highest Blistering and Rusting grades available.

We know of no other coating worldwide that has achieved these results. SIMIX will add years of life to any HVAC system, heat pump, refrigeration unit and pool heater equipment while at the same time significantly reducing you kWh consumption from 12%–24%.

Blistering, Rusting, Coating Delamination, and Coating Discoloration Evaluations

After the 1008 hours of exposure, the test panels were digitally photographed and visually evaluated for the degree of blistering per ASTM D714-25, "Standard Test Method for Evaluating Degree of Blistering Paints." Blister size was rated on a 0–10 scale with the top grade of 10 indicating no blistering and progressively lower grades indicating progressively larger blisters. The frequency (amount) of blistering was rated as either none (no rating), few (F), medium (M), medium dense (MD) or dense (D) as compared to pictorial standards.

The degree of rusting of each exposed test panel was also evaluated per ASTM D610-08(19), "Standard Practice for Evaluating Degree of Rusting on Painted Steel Surfaces." The degree of rusting was rated using 0–10 scale based on the percentage of visible surface rust where a low grade of 0 indicated greater than 50% of the surface was rusted and a top grade of 10 indicated less than 0.01% of the surface was rusted (see "Rust Grading Scale" below); the samples were also compared to pictorial standards. The distribution of rusting was classified as pinpoint, spot, or general rusting, designated as either P, S, or G respectively.

Results of Visual Evaluation of Test Panels after 1008 Hours Cyclic Weathering Exposure

KTA ID #	Panel Type	ASTM D714 Blistering Rating	ASTM D610 Rusting Rating	Coating Delamination Observations	Coating Discoloration Observations
66077381-1	Aluminum	10	10	Delamination along top edge where panel rested against panel rack in QUV cabinet, and along side edges.	Coating became opaque and beige in color on upper half of panel, fading back to clear in lower half.
66077381-2	Aluminum	10	10	Delamination along top edge where panel rested against panel rack in QUV cabinet, and along side edges.	Coating became opaque and beige in color on upper half of panel, fading back to clear in lower half.
66077381-3	Aluminum	10	10	Delamination along top edge where panel rested against panel rack in QUV cabinet, and along side edges.	Coating became opaque and beige in color on upper half of panel, fading back to clear in lower half, with several darker spots.
66077381-4	Copper	10	10	Delaminated spots near top and along side edges.	Coating became opaque and beige, slightly darker in color on upper half of panel. Green oxidation evident at top edge. Delaminated spots were dark in color.
66077381-5	Copper	10	10	Delaminated spots near top and along side edges.	Coating became opaque and beige, slightly darker in color on upper half of panel. Green oxidation evident at top edge and strip running down right side. Delaminated spots were dark in color.
66077381-6	Copper	10	10	Delaminated spots near top and along side edges.	Coating became opaque and beige, slightly darker in color on upper half of panel. Green oxidation evident at top edge and strip running down left side. Delaminated spots were dark in color.

Rust Grading Scale – Percentage of surface rusted (from ASTM D610-08(19))

Grade 10 - less than or up to 0.01%
Grade 9 > 0.01% and up to 0.03%
Grade 8 > 0.03% and up to 0.1%
Grade 7 > 0.1% and up to 0.3%
Grade 6 > 0.3% and up to 1.0%
Grade 5 > 1.0% and up to 3.0%
Grade 4 > 3.0% and up to 10.0%
Grade 3 > 10.0% and up to 16.0%
Grade 2 > 16.0% and up to 33.0%
Grade 1 > 33.0% and up to 50%
Grade 0 > 50%



Testing by KTA-Tator Inc.
Project No. 66077381

PRESERVES • PROTECTS

A/C - HEAT PUMP - REFRIGERATION - ROOF - ALL EXTERIOR SURFACES



REAL SUSTAINABILITY • REAL SAVINGS™

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MADE IN USA

SMX228

