



References products and processes designed by AA coatings



Italy by AIAX application by flow coating

Steps and processing time per sqmt faced area. **AIAXCoatings**

- | | |
|--|-------|
| 1. Degreasing | 1 min |
| 2. High pressure air to remove water out of the coil | 1 min |
| 3. Flow coating | 2 min |
| 4. High pressure air to remove excess coating out of the coil | 1 min |
| 5. Edge coating Resulting in an even 25 to 30 micron // 1 to 1,2 mil of layer thickness, evenly spread over the fin package. | 2 min |



Hawaii by HVAC Guard

Multi Coat Siloxane Panel Guard and KL10K Coil Guard applied for 7 years without warranty cases. **HVAC GUARD**

South Africa by Bluchem

BluGuard Coil and Panel Coatings applied to thousands of units. **Bluchem**

Saudi Arabia by Zamil Coolcare

Coil ResisTec and Multi ResisTec applied to > 500 000 coils and headers without any warranty claims. (Special Zamil Owned Recipes) **ResisTec**

Houston by Shield Air

Six years coil and component coating with AA products without any quality issues. **CORROTEC**

Netherlands by Requa

AA coatings are carried by Requa in the Netherlands to supply the after market and OEM market. **.requa**

America by MGM Products Inc.

MGM manufactures and markets an extensive product line labeled under the MGM Products logo and sold through HVAC OEMs and distributors. MGM's in house coatings department anchors a robust value add product offering for their customers. With high strength polyester powders baked on at 400 degrees, DTM epoxies and now the AA product portfolio of Panel coatings, pan coat and complete coil protection coatings, MGM has solidified its position in the aftermarket coatings industry. **MGM PRODUCTS, INC.**



AQUA AERO
HVAC COATINGS
unique in the world

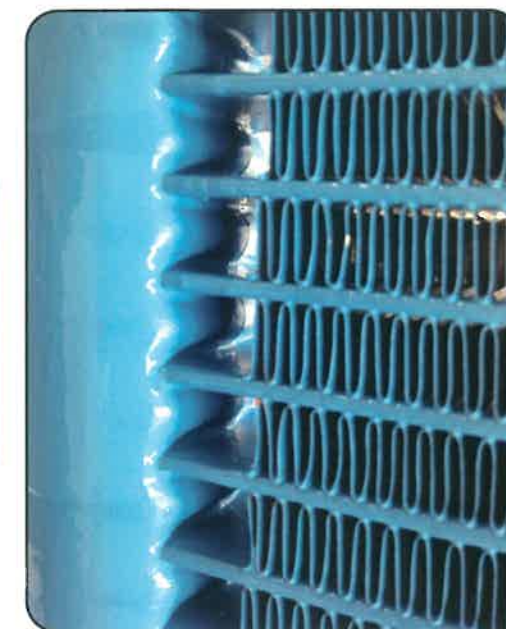


OEM RTPF

Highest Chemical Resistance
No Solvent No Smell
Short Drying Times

OEM MCHX

Compliant To Industry Spec's
Spray Or Dip
UV Resistant
Highest Adhesion To Flux



FIELD COATING

No Smell
Dry In 20 Minutes
Easy Maintenance
Cost Effective

AQUA AERO COATINGS 100% Waterborne 100% Quality

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Unique production methods

AA coating has developed a coil FLOW coating application for the AA Aqua Aero coating system that secures 100% penetration (like dip coating), but no dipping tanks required. 50% less labor and 60% less production time than spraying. Flow coating is applicable to Cu/Cu & Al/Cu coils.

The coating has no hazardous contents and can be applied without any legal restrictions. AA can be sprayed, dipped or flowed resulting in an equal layer thickness of 25 microns or 1 mil. All accelerated tests are available, including other required technical information. AA complies to MCHE industry standards.



Field coating

AA coating products include Multi Coat Siloxane that withstands the most severe corrosion conditions, like waste water plants and off shore oil rigs. As top coating with Mastic AA primer, Multi Coat Siloxane will eliminate corrosion of headers, panels, compressors and drainpans for the lifetime of the equipment. The coating is product and process wise a better alternative to products with similar specifications. Multi Coat Siloxane has been exposed to thousands of units in the Middle East without any defects. Multi Coat Siloxane with Mastic AA as a primer are recommended for components, in addition to AA coil coating.



Specification

AA Coating Specification General

- Corrosion resistance meets a minimum 6,000 hours ASTM B 117 Salt spray test.
- Coating must be water based, non hazardous components.
- Application must be fit for factory and field application.
- Flexibility must be proven to cope with expansion and contraction of fins.
- Cleaning and maintenance instructions are supplied by the manufacturer.
- Layer thickness less than 40 micron to prevent pressure drop.

AA Coating Product Requirements

1. Manufacturer supplies a chemical resistance list against harsh environments.
2. The flexibility of the binding material has proven properties to allow the expansion and contraction of the heat exchange surface, by mandrel test or equivalent.
3. The coating contains metallic pigments for heat rejection and reflection. Thermal conductivity decrease is less than 3%.
4. The coating finish by dipping results in consistent layer thickness.
5. Coating can be applied before (factory) or after assembly (field) of the equipment.
 - Adhesion must meet G0 at cross hatch test.
 - Coating is UV resistant



Other products

Multicoat Siloxane for Panel and Casing (Low VOC)

Extreme chemical resistant coating systems for long term protection against corrosive environments, specific for powdercoated, galvanised, copper and steel substrates.



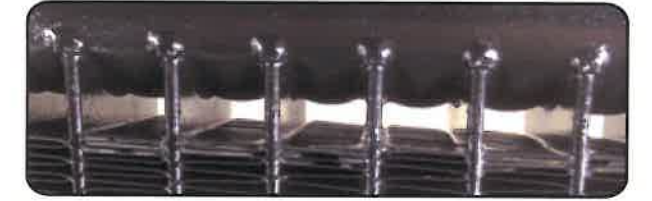
VOC Free PAN coating

Self leveling PU cast coating for drainpans and water boxes for hygienic and anti corrosive surfaces. Properties exceed quality of stainless steel.



AA COIL colored or clear

AA coil can be supplied as a clear coat, anti corrosion and UV protection at specified colors, this to prevent to deviate from OEM specifications.



Comparison

COMPARISON COIL PROTECTIONS OPTIONS							
Comparison to bare coil	AA coil	Thermoguard	Cu/Cu	AST dip Efin	Phenolic dip	BronzGlow USA	Blygold
Weight	-	-	---	-	-	-	-
Cost	-	-	---	-	-	-	-
Galvanic action	+++	+++	+++	+++	--	+++	+++
Thermal performance	-	-	=	-	-	--	-
Warranty terms	+++	+	=	--	+	--	+
Process Comparison							
Spray	yes	yes	no	no	no	yes	yes
Dip	yes	no	no	yes	yes	yes	no
Flow	yes	no	no	no	no	no	no
Investment in equipment	\$ 10 000	\$ 10 000	=	\$ 2 mln	NA	\$ 200 000	\$ 10 000
Application steps	2	6	=	8	4	4	6
Application time / 1 sqm incl drying	30 minutes	4 hours	=	6 hours	6 hours	6 hours	4 hours
Environmental compliant	yes	no	no	no	no	no	no
Smell	no	yes	=	no	yes	yes	yes
Specifics compared							
Salt Spray ASTM B117	6000	+ 10000	=	+ 5000	+3000	+ 6000	+ 4000 hours
Surface Characteristics	smooth	=	=	very smooth	=	smooth	=
Cost	attractive	interesting	expensive	very expensive	interesting	expensive	expensive
Casing/Pan Coating	yes	yes	no	no	no	yes	yes
Cutting edge protection	yes	yes	=	yes	yes	yes	yes
Header treatment	yes	yes	no	yes	yes	yes	yes
Maintainable at site	yes	yes	no	no	no	yes	yes
Warranty	yes	yes	no	no	yes	yes	yes
Colour	blue	silver	copper	black	brown	goldish	bronze
Flexibility	yes	yes	=	yes	no	yes	yes
UV Resistance	yes	yes	=	yes	no	yes	yes
Ph Resistance	yes	yes	no	yes	yes	yes	yes
Chemical resistance	yes	yes	no	yes	yes	yes	yes
Heat conductive	yes	yes	=	no	no	no	yes
Layer thickness	25 µ	25 µ	=	50 µ	75 µ	50 µ	25 µ
Dirt repellent additive	yes	no	no	no	no	no	no

Note: Information concluded from available literature. This chart may be updated once new information becomes available.

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