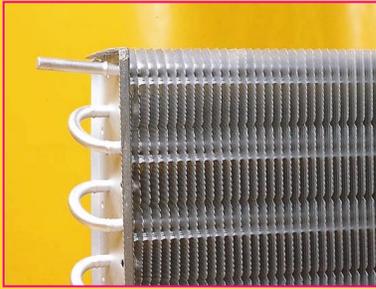


BLYGOLD PoluAl

Protective Coating for HVAC/R Coils



Exposed to Corrosion



Protected with PoluAl

BLYGOLD:

Blygold was established in the Netherlands over twenty-five years ago in response to a market demand for more effective coating products for HVAC/R applications. From its origin, Blygold has been developing protective coatings specifically engineered for HVAC/R coils and equipment that are installed in corrosive marine and industrial environments.

The unique capabilities of Blygold products combined with Blygold's global network of licensed applicators, have made Blygold the global leader in the protective coatings market for HVAC/R coils.

The PROBLEM is CORROSION:

Coil manufacturers are continually designing more efficient coils by utilizing higher fin densities and enhanced fin geometries. As a result, increasingly thinner metals are utilized that have greater surface exposure to corrosive influences.

Protective Coatings for HVAC/R Coils & Equipment

When HVAC/R equipment is installed near coastal or industrial areas, the coil's finned surfaces are exposed to salts and other corrosive substances as air passes through the coils during operation.

Once corrosion starts to develop, a unit's capacity decreases rapidly resulting in reduced efficiency and increased energy consumption. In some conditions, the operating performance of unprotected coils can decrease by over 30% in less than 6 months.

The SOLUTION is BLYGOLD PoluAl:

Blygold PoluAl is a metallic impregnated polyurethane coating specifically designed for application to aluminum finned-copper tube coils. It is a thin (25 microns), flexible, UV and impact resistant coating that exhibits excellent adherence to aluminum surfaces. PoluAl protects the parent metal against a wide range of corrosive salts, acids, and other elements found in the atmosphere and provides protection superior to that of Cu/Cu coils.

In addition to a superior ability to resist corrosion, the unique characteristics of PoluAl result in it having only a negligible effect on pressure drop, and heat transfer (k value) of the coated coil. The HVAC/R unit coated with PoluAl receives all the benefits of corrosion protection without losing operating efficiency.



3-YEAR WARRANTY:

Blygold guarantees protection for HVAC/R coils with a standard 3-year conditional warranty for Blygold PoluAl applied on aluminum-finned, copper-tube coils by certified Blygold licensed applicators.



Blygold

Field of Application:

Applicable to aluminum-finned, copper-tube condenser/evaporator coils and heat exchanger coils.

Typical Applications:

- Coastal, Marine, & Offshore Environments
- Waste Water Treatment Facilities
- Pulp & Paper Mills
- Mining & Drilling Operations
- Refineries & Heavy Manufacturing
- Pharmaceutical & Chemical Plants
- Semiconductor & Photo Film Manufacturing
- Meat & Dairy Processing
- Hog & Mushroom Farms
- Swimming Pool Applications
- Commercial Refrigeration
- Various Other Corrosive Environments

Characteristics:

Conversion Layer	Chromate Free
Topcoat	Metallic Impregnated Polyurethane
Color	Silver
Dry Film Thickness	20–25 Microns = 1 Mil (Approximately)
Temperature Rating	up to 194° F (up to 90° C)
pH Range	3 – 12
Cross Hatch Adhesion ASTM D5339	4B – 5B

Accelerated Testing:

Salt Spray Test ASTM B117	3000 Hours +
Acid Salt Spray Test ASTM G85 (Formerly - B287)	3000 Hours +
Kesternich DIN 50018-SFW 2.0S (2 liters SO ₂)	80 Cycles



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BLYGOLD PoluAl

Protective Coating for HVAC/R Coils

Advantages:

Aluminum Impregnated Polyurethane	UV Resistant Highly Flexible Sheds Water Negligible Effect on Heat Transfer (k value)
Superior Adhesion	No Cracking or Flaking Highly Impact Resistant
100% Coverage	Covers All Finned Surface Area and Cut Edges
Extremely Thin	No Bridging Negligible Effect on Pressure Drop
Field Tested Corrosion Protection	Years of Successful PoluAl Applications in over 30 Countries
Energy Savings	Corroded Coils Cause Rapid Declines in HVAC/R Energy Efficiency
Application Process	Fast Turn-Around Time Able to Coat Most Units Without Removing Coils Environmentally Safe
Warranty	3-Year Standard (Conditional)

Application Process:

1. Inspection & Cleaning
2. Fin Alignment
3. De-Oxidizing
4. Rinsing
5. Conversion Layer
6. Drying
7. PoluAl Topcoat

PoluAl Specification:

Aluminum Impregnated Polyurethane Coating:

The coating manufacturer shall be able to document the successful completion of accelerated product testing of a minimum 3000 hours in both salt spray (ASTM B117) and acid salt spray tests (ASTM G85); and shall be able to provide a 3-year conditional warranty for the coating applied on aluminum-finned, copper tube coils. The product application process shall include the application of a chromate-free conversion layer applied to the coil that achieves total coverage and penetration. An aluminum-impregnated polyurethane topcoat shall be applied that ensures total penetration and coverage without bridging or significantly affecting the heat transfer ability of the coil. The total dry film thickness of the topcoat shall be 20 to 25 microns (0.020 to 0.025 mm). The coating shall provide protection against ultraviolet radiation and be temperature resistant up to 194°F (90°C).

Some Organizations Using Blygold PoluAl:

- Carrier
- Trane
- Lennox
- York
- McQuay
- Mitsubishi
- Shell
- ARAMCO
- IBM
- KLM
- Verizon
- State of Hawaii
- U.S. Army
- U.S. Air Force
- U.S. Navy
- U.S. Marine Corps

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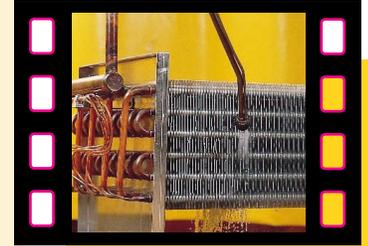
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