bluchem
Anti-Corrosion Coatings

BluGuard™ Coating Solutions

Total Corrosion Protection for HVAC/R Systems

COIL PROTECTION - PRODUCT INFORMATION

BluGuard™ Coil Protection is a one component metallic impregnated water based coil coating from Bluchem that has been specifically engineered for heat exchange coils. This high performance coating can be applied at one of our workshops situated countrywide, or at the installation site.

Our strict cleaning, pre-treatment and application procedures ensure maximum adhesion and life cycle performance of the equipment. Our spray procedure establishes a DFT of around 25 micron or 1 mil. The coating has a salt spray test result of > 5000 hours and is resistant to most common chemical vapours.

Benefits

- Increases life cycle of HVAC/R equipment
- Resists corrosion, moisture and UV rays
- Suitable for Cu/Cu and Cu/Al
- Suitable for tube and micro-channel designs
- No environmental restrictions
- Value for money
- Significant energy savings over unit life cycle
- Meeting all HVAC coating requirements
- Continuous European R & D support

Advantages of the BluGuard™ Coating

- Unmatched technical performance
- No influence on heat exchange efficiency
- Water based - Environmentally safe
- Application by certified technicians
- Short lead times
- Collection and drop off service available
- On site application offered (no smell / non-flammable)

Suitable for:

- Coils (water/condenser/evaporator/DX)
- Mini splits
- Package rooftops
- Condensing units
- Modular air handlers
- Air cooled chillers

FOR CONSULTANTS AND SPECIFIERS

Engineering Specification for HVAC Anti-Corrosion Coatings

1. Air cooled condenser / evaporator coils should have a spray applied or dipped corrosion protection coating.
2. The coating used must be specifically designed for the coating of heat exchange coils that are situated in corrosive areas. (No generic coating products to be used)
3. Coating should be a metal impregnated product that is resistant to most common chemical vapours. (Chemical resistance chart to be available)
4. A Certificate of Coating must be issued clearly indicating the unit serial number and warranty period.

Coating Performance Considerations:

5. The coating dry film thickness should be 15 – 30 microns without any material bridging between fins, and no more than 40 microns to prevent pressure drop across the coils.
6. Impact on pressure drop and heat transfer must be less than 3% maximum. Test reports to be available.
7. The coating material must have certified documents (from an independent laboratory) with regard to ASTM or equivalent standardised testing of the following key specifications as a minimum requirement:

TEST	MINIMUM REQUIREMENT
a) salt spray as per ASTM B117	≥ 5000 hrs
b) acid salt spray as per ASTM G 85	≥ 1000 hrs
c) sulphuric acid gases as per Kesternich SFW 2,0 S	≥ 20 cycles
d) Taber abrasion as per ASTM D 4060	≥ 1000 cycles
e) Cycle exchange for marine & off-shore coatings ISO 20340	≥ 1000 hrs

NB: testing must be done at coating thickness of no more that 40 microns (actual field coating thickness) to ensure they are relevant.

Environmental and Safety Considerations (Optional):

8. The coating should be water based, solvent free and low VOC (Volatile Organic Compounds).
9. For on-site work the coating must be non-flammable.

Approved product: Bluchem BluGuard™ Coating or equal when verified by written specification.

CAPE TOWN (Head Office)
8 Staal Street, Brackenfell, 7535
Tel +27 (0) 21 982 1409
info@bluchem.co.za

DURBAN
Unit 4, 3 Kyalami Rd, Westmead 3630
Tel +27 (0) 31 700 5052
durban@bluchem.co.za

PORT ELIZABETH
Unit 5, Leadwood Crescent, Lorraine, 6055
Tel +27 (0) 41 368 5203
portelizabeth@bluchem.co.za

JOHANNESBURG
Unit 2, 20 Plantation Rd, Eastleigh, 7535
Tel +27 (0) 11 609 8842
jhb@bluchem.co.za