

# Blygold<sup>®</sup>

Coil Protection

5 Year  
Guarantee

against Corrosion &  
Performance Loss

**SPC**

## introduction

**Corrosion** is widely accepted to be the main cause of early deterioration in heat exchanger coils, traditionally the most vulnerable part of air-side HVAC equipment.

If corrosion occurs without any corrective or preventative measures, performance can decrease by up to 80%.

Sealing the heat exchanger surfaces from the environment will either delay corrosive processes or prevent them from occurring in the first place, this being dependent upon the operating environment.

**Blygold** PoluAl is an anti-corrosion treatment consisting of a conversion layer followed by a polyurethane top coat. The operating temperature range is -50°C to 180°C. There is no loss of heat transfer performance and only a minimal change in air pressure drop. The **'Blygold'** treatment can be applied to cooling and DX coils, run around coils, heating coils and heat pipes. Areas of application may include:- industrial, commercial, medical, process, marine etc.

To counteract the possibility of corrosion it is current practice to specify either thicker fin material or higher specification material such as copper. With **'Blygold'** there is significant potential for reducing the overall weight of the coil in addition to corrosion protection.

## problem

The air around us is more aggressive than you think. City pollution, acid rain and saline air can be extremely harmful to air conditioning systems. This is particularly the case where the fins of a heat exchanger are directly exposed to its corrosive properties.

### What is happening to your Coil

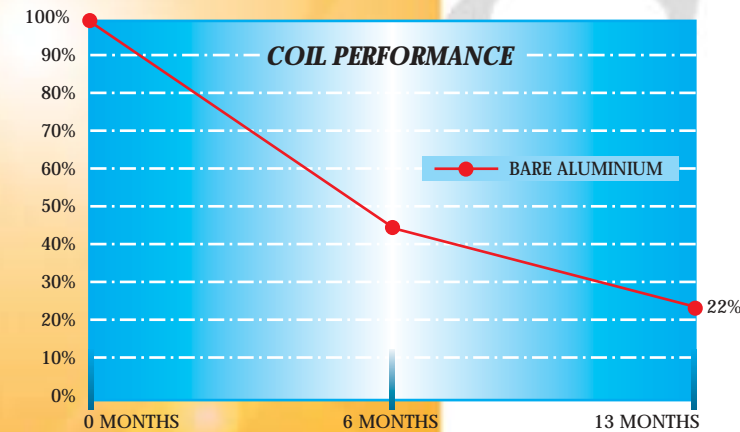
When fins start to corrode the metal surface becomes pitted and all kinds of dust and dirt will adhere to the surface. The coil becomes silted up and heat transfer is adversely affected. The corrosion creates excessive wear and increases energy consumption as plant and equipment has to run longer and work harder to meet the required duty.

# Blygold®

Coil protection  
5 year guarantee against corrosion  
and performance loss!

1	Plain Aluminium	No Protection
2	Aluminium Vinyl	Corrosion at cut edges
3	<b>Blygold</b>	<b>5 YEAR GUARANTEE</b>
4	Copper	No Guarantee
5	Copper ETAM	Sacrificial but still no guarantee

Increasing cost and weight ↓



What do you want in 5 years time?



Effects of corrosion.

New Blygold Coil



**SPC** Blygold® the perfect combination

## consequences

Corrosion will continue until the performance of the heat exchanger fails to meet the stated requirements. The overall result of corrosion is decreasing capacity and consequent increase in energy consumption.

The two most common forms of corrosion occurring in HVAC equipment are known as 'galvanic corrosion' and 'climate impact corrosion'. Both of these can lead to equipment failure.

### Coil Performance Reduction

The chart on the left presents some practical results of a coil tested for thirteen months facing the ocean and sandy winds. The performance of the bare aluminium coil decreased by 78%. In aggressive environments a post coating is an absolute necessity for an acceptable **life-span** of HVAC/R equipment.

## solution

**Blygold** are world leaders in the field of cleaning and conservation of air-conditioning systems, with over 15 years experience and references including KLM, AKZO Nobel, SHELL, DSM, Phillips, IBM, etc.

**'The Blygold PoluAl'** anti-corrosion treatment is a revolutionary treatment for coils, which will stop corrosion and capacity loss of your equipment.

**'Blygold PoluAl'** carries a **guarantee of 5 years**, provided that the recommended cleaning protocol is maintained. This gives you the guarantee that your coil is in optimal condition resulting in lower running costs and a longer coil life.

**SPC** are the UK's leading specialist coil supplier with over 20 year's HVAC experience.

Only with **SPC** can you buy a factory coated **'Blygold'** heat exchanger before site installation and therefore prior to any potential corrosive activity.

**SPC** No performance loss through corrosion, protect now and benefit later! **SPC**

# Blygold<sup>®</sup>

## Microbiocide

### Preventative anti-corrosion treatment for cooling coils

In a perfect environment, cooling coils should contribute to optimal hygiene conditions. However in practice, evidence seems to show the opposite. High humidity and soiling of the cooling coil, can provide the ideal circumstances for microbiological growth.

Since cleaning procedures and access to the coil are far from easy, many installations will show an unacceptable growth of micro-organisms.

The EC regulations on this issue (93/43/EC) recognise the importance of the problem.

**Blygold** PoluAl MB, which gives guaranteed corrosion protection, is enhanced with a non-evaporative microbiocide. The frequency of cleaning and disinfection of air treatment systems can be significantly reduced by coating the cooling coil. **Blygold** PoluAl MB has exactly the same anti-corrosion properties as the conventional **Blygold** PoluAl treatment, including zero loss of heat transfer efficiency and minimal pressure drop (0%-3%).

By the application of this coating, it is now possible to apply a preventative treatment to coils before installation. Positive results include a protection against corrosion and elimination of microbiocides for an extended period of time.

## SPC PRODUCT RANGE

### WE MANUFACTURE

#### Heat recovery equipment.

Including run around coils and heat pipes.

#### Heat exchangers,

Coils for heating, cooling, refrigeration, air-conditioning, process applications and radiant heating panels.

#### Heating/cooling equipment

Including Fan Convectors, Natural Draught Convectors, Warm Air Curtains, Dehumidifiers.

# SPC

A Halma Group Company

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