

# COIL RESISTEC

## PRODUCT INFORMATION SHEET



**Coil ResisTec** is a European engineered heat exchanger anti corrosion coating, especially developed for Middle East conditions. With negligible effect on coil performance. **Coil ResisTec** provides a long lasting full protection against corrosion.



1974

Zamil Air Conditioners (ZAC) is one of the first air conditioning companies to be established in Saudi Arabia. Today ZAC is a leading international manufacturer of air conditioning systems and is the number one manufacturer in the Middle East.

ZAC manufactures both consumer and central air conditioners and has sales operations in over 55 countries in the Middle East, Europe, Africa and Asia.

The company's operations are structured into four Strategic Business Units (SBUs) supporting six in-house product and service brands as well as number of international brands under the OEM Sales.

The six in house brands are as follows:

Zamil  
Classic  
Cooline  
CoolCare  
ClimaTech  
Geoclima

Today



### Components

**Coil ResisTec** coating is based on high solid enforced modified Poly Urethane coating. A special polymer has been added to achieve a very smooth surface that rejects dust and dirt. The finished product establishes a combination of smoothness, corrosion resistance and flexibility which are required for HVAC equipment. **Coil ResisTec** can be applied for rejuvenation (field application) or new manufactured equipments at the Zamil Air Conditioners factory.



### Characteristics

**Coil ResisTec** is a metallic impregnated Poly Urethane coating especially developed for Middle East conditions. A 30% contents of aluminium flakes establishes heat conductivity, with a proven testing records in specific corrosive conditions especially with high temperature, humidity and chemical pollution.

**Coil ResisTec** is applied by high pressure spraying, that ensures a total coverage of the aluminium copper interface, preventing galvanic action that dissolves the aluminium fin.

- Aluminium contents enhances K Value
- Minimum layer thickness with negligible increase of air pressure drop across the coil.
- Application properties minimize coil failures.



### Surface conditions and Application Process

**Aluminum fin surface:** Cleaning, Conversion, Drying, **Coil ResisTec**.

**Copper headers:** Detergent cleaning, etching, **Coil ResisTec**.

**Copper fins** : Detergent cleaning, 5% phosphoric acid, , two layers of **Coil ResisTec**.

**PreCoated** : Detergent cleaning, one layer of **Coil ResisTec**.

**Microchannel** : Steam clean, 5% phosphoric acid, one layer of **Coil ResisTec**.

#### FOR PROFESSIONAL USE ONLY

**IMPORTANT NOTE** The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given is subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.



AN ECO FRIENDLY INITIATIVE OF  
ZAMIL AIR CONDITIONERS  
DAMMAM - SAUDI ARABIA

[www.zamilac.com](http://www.zamilac.com)

# COIL RESISTEC

## PRODUCT INFORMATION SHEET



**ResisTec**<sup>®</sup>  
Anti Corrosion Coating  
from **Zamil**



### Instructions for use

**Mechanical Mixing** until all pigments are uniformly dispersed.  
**Allow** products to acclimatize before use.  
**Do not** add thinners, product is ready for use.  
**Do not add water**, just use specified thinners for dilution  
**Thinners** < 100ppm moisture (PU STD 3110, PU Fast 3111)



### Tests

ASTM B117 SaltSpray 3000 hours

Manufacturer Specifications:

ASTM G-85 Modified SaltSpray 3000 hours

Taber Abraser wearing test, Erichsen flexibility test, Kesternich sulphur test



### Preferred Application Conditions

**Temperature** : 5 – 35 °C // 40 – 95 °F

**Relative Humidity:** 35 – 80 %

Application condition limits are sensitive: expect increased drying times and potlife over the limits, and decreased drying time and potlife under the limits.



### Product Application



• **Spray viscosity** // (21 °C / 70 °F) / RFU 24 sec  
ISO din cup 4 mm



• **Airless Airmix** // 24 - 28 sec



• **Potlife** // ( 21°C / 70 °F), 55% RH 2 hours



• **Dry Film Thickness** // 25-30 μ / 1—1,2 m



• **Flash off** // 30 minutes.



### Physical Properties

#### Drying times

<u>Substrate temperature</u>	<u>21 °C/70 °F</u>	<u>40 °C/104 °F</u>
Dry to dust	1.5 - 2 hours	0.5 hour
Dry	2 hours	1 hour
Fully cured	2 days	1 day

\*\* **Special attention** Curing of ResisTec products depends on Temperature, Relative Humidity and air flow. Increased temperatures, high RH and airflow can decrease the drying times significantly.



**Color:** Green Metallic



**VOC:** Volatile Organic Compound 49% by Volume.

#### FOR PROFESSIONAL USE ONLY

**IMPORTANT NOTE** The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given is subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

**ResisTec**<sup>®</sup>  
Anti Corrosion Coating  
from **Zamil**

AN ECO FRIENDLY INITIATIVE OF

ZAMIL AIR CONDITIONERS  
DAMMAM - SAUDI ARABIA

[www.zamilac.com](http://www.zamilac.com)