Why choose preanodizing by Alumil

Alumil, as a pioneer in aluminium architectural systems development and production now offers the highly effective solution of preanodizing.

Alumil is among the few companies that are able to meet the requirement of powder coating of the preanodized profiles within 16 hours, as its ultramodern and fully automated anodizing plant is nearby the powder coating facility.

Alumil, true to its customer-oriented nature, now offers unlimited color options for use in coastal areas and areas with harsh environment. Notably, preanodizing in combination with the ultra durable Alumil powders offer unparalleled corrosion protection and excellent aesthetic result.

Add value to your constructions by choosing Alumil.

Alumil holds the quality labels of QUALICOAT, GSB and QUALANOD, while its team of scientific and technical staff conduct a number of daily controls in organized analysis and testing laboratories in full compliance with the standards in order to ensure the best possible result.

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HEAD OFFICES
& SHOWROOM - THESSALONIKI
Gogousi 8, Efkarpia
Thessaloniki - GR 56429
Tel.: +30 2313 011000
Fax: +30 2310 692473
E-mail: info@alumil.com

ALUMIL
HEADQUARTERS
Kilkis Industrial Area
Kilkis - GR 61100
Tel.: +30 23410 79300
Fax: +30 23410 71988
Email: info@alumil.com

Alumil

www.alumil.com

Alumil

PREANODIZING

PROTECT YOUR CONSTRUCTIONS FROM CORROSION
USING THE MOST APPROPRIATE SOLUTION

Aluminum corrosion in coastal areas and particularly harsh environments

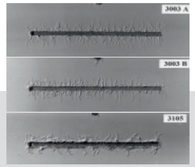
Coastal areas are among the most harsh environments for aluminium, since increased moisture and saline (with high concentration of chloride ions) create the ideal environment for corrosion development.

Aluminium is a reflexive metal, meaning that it is oxidized in contact with air as alumina trioxide Al_2O_3 is generated on its surface. When this process occurs naturally in noncontrolled environments and under specific external conditions (e.g. humidity, saline), aluminium corrosion is likely to develop under the powder coating layer.

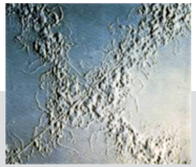
The phenomenon described above is known as filiform corrosion and constitutes one the major issues of aluminum powder coating industry.

It is mostly found in:

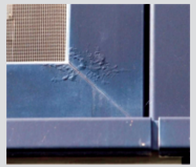
- coastal areas
- harsh industrial environment
- near swimming pools where water is chlorinated
- regions where salt is used on roads for snow and ice removal in winter



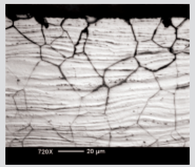
Filiform corrosion development stages



Severe filiform corrosion at powder coated aluminum surface



Filiform corrosion at powder coated architectural aluminum profile



Filiform corrosion development under the microscope (20µm)

Dealing with filiform corrosion

Worldwide studies and years of experience have shown that pre-treatment of profiles prior to powder coating is crucial for the emergence, development and further extension of corrosion.

Seaside by Qualicoat and Sea Proof by GSB suggest chemical removal of an aluminium layer, which is the method used by most. Alumil additionally offers preanodizing as a more advanced and specialized pretreatment technique.

It is important to note that powder coated profiles that have been preanodized are characterized as AUTOMATIC SEASIDE by Qualicoat and Sea Proof Plus by GSB, a class higher than the profiles that have been treated by "chemical removal of an aluminium layer" prior to powder coating.