ALUMIL
ANODIZING

The largest and most up to date Anodizing Plant in Europe

Alumil, being well aware of the modern architectural trends which place emphasis on the aesthetics of aluminum for exterior / interior applications, and sensing the market's need for an enhanced service quality towards its clients, has invested in the largest, fully automated anodizing plant in Europe.

The **90.000A** plant, is equipped with **70** baths yielding a production potential of up to **650 m^2/hr** of clear anodized surface per hour @ 15μm. Additional features and advantages which constitute the uniqueness of Alumil's anodizing plant are:

Wide variety of surface treatments for different metallic finishes:

- **Shiny, matt, satin, sandblasted, linear/directional brushing**.
- **Independent electrochemical polishing production line**.
  This line can offer a wide variety of extremely shiny or semi gloss finishes.
- **Full range of electro-colors**, which cover for all the current market trends while allowing for the integration of future new colorings and shades which can be developed according to and in collaboration with client needs.
- **INOX look** finishes.
- **Variety in organic colors** (gold, black, green, red, blue).
- **Combination of all of the above** in client of custom made to order finishes.
- **Fully automated production line** with an integrated monitoring of all sequential production steps and parameters.
- **"Green" management:** vapor free environmental conditions, 80% water recycling, energy saving, full waste treatment and recuperation, excellent personnel safety monitoring and conditions.

NATURAL

CHAMPAGNE

LIGHT BRONZE

BRONZE

BRONZE DARK

LIGHT BROWN

DARK BROWN

NOIRE

ALUMIL ANODIZING

With the term “anodizing” we refer to the removal of the natural occurring oxide (thus containing a number of unwanted constituents) which forms as a film on the exterior surface of aluminum, and its replacement with an electrochemically created oxide which is formed under predefined conditions in a controlled environment. This process gives enhanced surface hardness, improved corrosion resistance along with the possibility for surface coloring. In other words, aluminum is transformed through this process attaining an artificial oxide instead of the natural occurring one.

Since the process takes place in a controlled environment, the resulting oxide film is highly durable and cohesive, thus offering enhanced protection against environmental conditions of any kind. This anodic film is transparent and its porous surface structure allows for the impregnation of intended “contaminants” of selective chemical nature, thus offering coloring to the surface.

Some of the distinctive features of the anodizing process are:

- Since the artificially created oxide is derived from the deep core metal, it is totally cohesive to it and posses no issues of detachment or debonding.
- The corrosion resistance of an anodized surface displays excellent durability, provided that all production, application and use specifications have been properly followed.
- All aluminum anodized surfaces attain a metallic appearance and texture.
- With nowadays technology, there is no longer a limit to the possible attainable colors.

The process of anodizing as a means of aluminum surface treatment has been practiced for over 60 years. During this time interval, all the infancy issues and obstacles have been overcome by innovative research, development and the utilization of new process thus, making anodizing and internationally approved and accepted method of surface treatment both for its technology of application and its endurance in time.

When the production sequence is combined with proper maintenance of the final, finished product, then an excellent corrosion resistance behavior is observed, coupled with a long lasting color brightness which is unmatched by any other surface coloring process (e.g. powder coating, Liquid paint etc), especially in adverse environmental conditions (high pollution, high humidity, high salinity, high UV environments e.t.c).

The high observed mechanical surface properties of anodized profiles make them suitable for a wide range of architectural and/or industrial applications.

NATURAL

YELLOW

DARK YELLOW

ORANGE

RED

PURPLE

BLUE

LIGHT GREEN

GREEN

Printed colours may not accurately represent actual anodized aluminium colours