

For the products AERGRAMMI that are aluminum manufactured, alloy with composition AlMg-SiO₂S (606040) which is anodized or electrostatic painted is used. The process that is followed and the characteristics of the anodization and the electrostatic paint are described below.

ANODIZATION

Activity of artificial oxidation at which the profiles by which the grille is manufactured are sunk in water solution of sulphuric acid and continuous current is applied so we have electrolysis. This shapes a uniform and transparent layer of oxide (Aluminate) in the surface of the profile with thickness 12µm which is completely incorporated in the metal. By doing this accretion problems are eliminated.

The required thickness of anodization for internal spaces is 10 µm and for exterior urban spaces it is 10-15 µm.

Advantages:

- High anticorrosion protection from humidity, salinity etc
- The surface texture of the grille will not degrade neither the capacity of painting.
- The objects have metal aspect, smooth or mat.
- Increases the hardness of his surface.

ELECTROSTATIC PAINT

Preparation (cleaning) of the surface of aluminum is taking place with submersion of the grilles in suitable chemical solutions, and follows the deposition of electrostatic charged polyester powder in the grilles which are grounded. Then polymerization of powder is taking place in temperature of 190°C in order to create a protective stable coating of paint.

Advantages:

- There is unlimited variety of colors thus satisfies the requirements of each architectural application.
- It protects aluminum from the corrosion making it durable through time.

The thickness of electrostatic paint is between 60 to 120 µm.

ATTENTION must be paid in every case, that the aluminum from which the air grilles are manufactured has applied at least one from the two above mentioned treatments. This in the first look means increase of the cost but if we see it in the long run we will see that the total cost will be decreased because we will avoid problems.

In the case that aluminum has not suffered any from the above then the grille will be corroded and will become black color in a short time making it non good looking. In addition to this fungus will grow on its surface. In the case of having cold air supply condenses will grow on its surface.

More info: **aluNET**

http://www.alunet.gr/detail.asp?news_id=620&category=Aluminium_Uses