

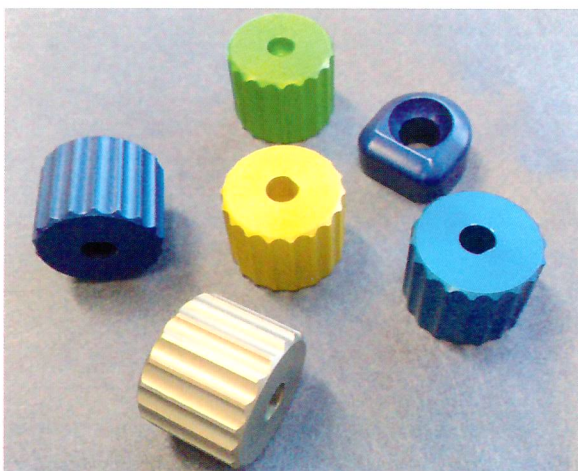
Aluminium anodizing

The anodizing process is a surface treatment to protect or decorate aluminium parts. This coating is mainly used for its electrical insulation, adhesion to paint and resistance to wear and corrosion.

Steiger Galvanotechnique SA offers various types of anodizing:

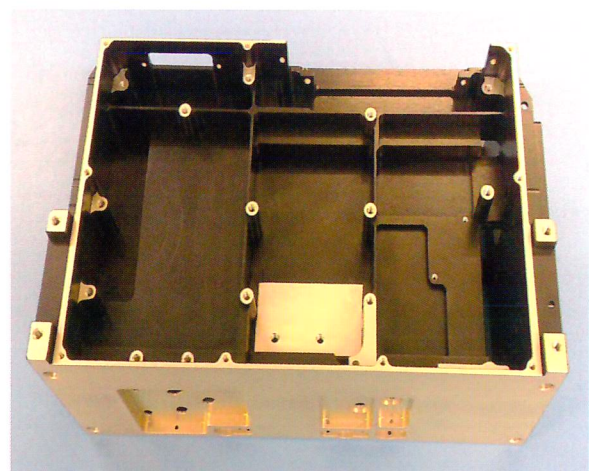
Anodizing type	Norm
Conventional anodizing, GS	MIL-A-8625 Typ II, Classe 2
Black anodizing, OAN space	ECSS-Q-ST-70-03C
Hard anodising, OAD	MIL-A-8625 Typ III
Ematal	MIL-A 8625 Typ IC class 1

The conventional anodising GS, can be applied without coloring or may be colored by organic pigments in a wide range of colors. The coating has good resistance to corrosion, tarnish and sterilization. It is currently used for decoration and identification. Applications include a wide variety of devices and instrumentation such as medical device components and parts in precision mechanical engineering.



Parts of medical instruments anodized with the conventional GS process

The black anodizing, OAN space, is tinged with a mineral pigment. It is resistant to UV and to atomic oxygen present in the lower stratosphere. It is characterized by a high normal emissivity ($\epsilon_n = 0.9$) and high absorption ($\alpha_{\text{solar}} = 0.95$). It is applied to parts for satellites, for instance aluminium electronic boxes. The functionality of the coating is to maintain the thermo-optical equilibrium of the electronic systems on satellites undergoing severe temperature cycles.



Electronic box for telecommunication satellite, coated with alodine and black anodization