

What is Aluminium eloxiert

Aluminium anodized

Anodized aluminum sheet for engraving and print technology

Anodized aluminum is one of the most widely used materials in engraving technology. The electrochemical anodizing process forms a solid, colored oxide layer on the aluminum surface, giving the sheet its characteristic appearance and a markedly higher resistance.

What anodizing does

During anodizing, aluminum's natural oxide layer is electrochemically strengthened and then colored. The result is an evenly colored surface that is firmly bonded to the base material and does not chip or peel the way an applied coating can.

The anodized layer also hardens the surface, making it more resistant to scratches, abrasion and weathering – a key advantage over untreated aluminum.

Processing in engraving technology

Anodized aluminum can be both laser-engraved and printed. Engraving exposes the underlying metallic layer, producing a permanent, high-contrast text or symbol that does not fade.

Advantages

- Very durable, abrasion-resistant marking
- Consistent appearance over the entire service life
- Versatile for nameplates, front panels and labeling

Disadvantages

- Anodizing colors are limited to the shades achievable in the process
- Subsequent forming can damage the anodized layer

Typical Properties

- Permanently colored, hard surface
- High resistance to abrasion and weathering
- Suitable for laser engraving and printing

Product Examples

- Nameplates
- Control front panels
- Information and warning signs

Typical Industries

- Machine and plant engineering
- Electrical engineering
- Signage and identification

	Test Method	Unit	Value
Version			
Material			Aluminum, anodized
Surface finish			silver anodized
Processing			Laser engraving, print technology