

Anodizing



Normal Anodizing

We add value to your parts

Normal anodizing

Sulphuric acid anodizing, better known as normal anodizing is a coating developed for the functional and decorative improvement of Aluminum parts. The coating is performed in an acid electrolyte at temperatures slightly below room temperature. The parts are connected with the anode and, in the course of the treatment, the parts surface is converted into an Aluminum oxide layer.

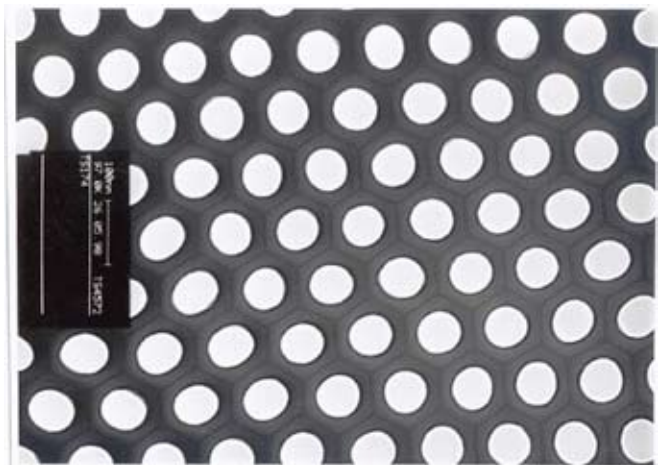
The layer thickness to be achieved depends on the application, the properties to be obtained by the layer and the subsequent resistance. For most applications, layer thickness values ranging from 5 to 20 µm can be obtained. The oxide layer builds up for 1/3 on the aluminum and for 2/3 in the aluminum. This property must be considered when making components when it comes to their fit. However, there is also the possibility to inter-

vene to ensure dimensional accuracy and hence the fit. Nearly all wrought, cast and die-cast Aluminum alloys destined for industrial can be anodized. However, the alloy has great influence on the color of the anodized part. An alloy out of the 3.000 series has grey colour, a 7.000 alloy has more gold appearance.

For more information please consult your AHC contact.

Layer properties

Max. layer thickness	Up to 20 µm depending on the alloy
Corrosion resistance	Max. 2.000 hours salt spray according to DIN 50021 ESS
Hardness	Up to 250 HV 0,025, depending on the alloy
General specifications	MIL-8625 Type II



SEM-recording of a 50 µm thick, complete anodized aluminum foil

Influence of the alloy on the finale colour of the layer

Alloy	Components	Appearance
1000er Series	unalloyed	Clear / Colorless
2000er Series	alloyed with Cu	Yellow / Gold
3000er Series	alloyed with Mn	Grey
5000er Series	alloyed with Mg	Dark grey
6000er Series	alloyed with Mg & Si	Anthracite grey
7000er Series	alloyed with Cu & Zn	Gold

Available colours are: clear, black and orange.
Others on request