

Tin

High Tech Galvanics

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What is tin plating?

Tin plating is a surface treatment that can be applied to a wide range of products due to the versatility of tin. Aalberts Surface Technologies B.V. is your partner when it comes to tin plating of a wide variety of parts and/or products. Thanks to our many years of experience, we can guarantee perfect quality even for the most complex shapes.

In electroplating, tin is applied to a conductive surface of metal products by means of electric current in an electrolyte to which tin salts have been added.

As with other electrolytic processes, the chemical composition of the electrolyte, the dc-current and the voltage affect the properties of the coatings. The process temperatures vary between 15 - 30 °C. At Aalberts-ST you can choose both the barrel and the racking process. These flexible tin-plating methods allow us to offer single products as well as bulk products with very short delivery times.



Feature	Specification
Maximum layer thickness	60 µm
Electrical resistance	115 · 10 ⁻⁹ Ωm
Electrical conductivity	up to 8.7 · 10 ⁺⁶ Ω ⁻¹ m ⁻¹ (at 20°C)
Hardness	20-27 HV
General standard	ISO 2093 : 1986



Parameter	Sn	Ag
Hardness	20 - 27 HV	70 - 120 HV
Solderability	+/+	+/+
Chemical resistance	+/-	+/+
Electrical resistance	115 · 10 ⁻⁹ Ωm	16 - 18.8 10 ⁻⁹ Ωm
Electrical conductivity	up to 8.7 · 10 ⁺⁶ Ω ⁻¹ m ⁻¹ (at 20°C)	up to 62.5 · 10 ⁺⁶ Ω ⁻¹ m ⁻¹ (at 20°C)
Maximum layer thickness	60 µm	More than 200 µm possible
Melting point	232°C	960°C
Appearance	Matte/Bright	Semi-bright/bright
Treatable materials	All metals, including aluminum, titanium and other exotic metals	