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Metal Deposition Solutions

AURUNA® 5400 Hard Gold Electrolyte

For Depositing Uniformly Bright Coatings

AURUNA® 5400 the weakly acidic electrolyte deposits yellow, uniform bright hard gold coatings. The newly balanced brightener system of the electrolyte enables the operation in a very wide current density working range and allows a variable gold content at the same time. Due to the usage of special chemical components, the AURUNA® 5400 is equally suitable for rack and barrel application.

The deposited coatings are characterized by low porosity and an increased abrasion resistance, compared to coatings deposited in AURUNA® 539. Furthermore contacts coated with AURUNA® 5400 exhibit a low and long-time stable contact resistance and an excellent solderability. As well coatings up to 10 µm can be crack-free depositied in the electrolyte.

Electrolyte characteristics

Electrolyte type	Weakly acidic
Metal content	8 (0.5 - 12) g/l Au
pH value	4.2 (3.8 - 4.6)
Operating temperature	50 (48 - 52) °C
Current density range	2.5 (1 - 5) A/dm²
Plating speed	0.1 - 1.0 µm/min
Anode material	MMO (type PLATINODE® 167 or 177)

Coating characteristics

Coating	Gold-Cobalt
Alloy composition	99.7 wt.% Au 0.3 wt.% Co
Colour of deposit	Yellow
Brightness	Bright
Hardness of deposit	150 - 220 HV

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Max. coating thickness	Crack-free up to 10 µm
Density of the coating	Approx. 17 g/cm³
Classification	Type I-II, Code C-D (equivalent to IC-IID according to MIL-G-45204C)
Solderability	ZCT < 0.2 s

Advantages

- Very wide operating current density range
- For technical and decorative applications
- High corrosion and abrasion resistance
- Low, stable contact resistance
- Classification according to ASTM B 488-01: Type I - II, grade C -D

Applications

- Contact pins, contact springs, contact plugs
- Contact materials
- Slip rings

Your contact person

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