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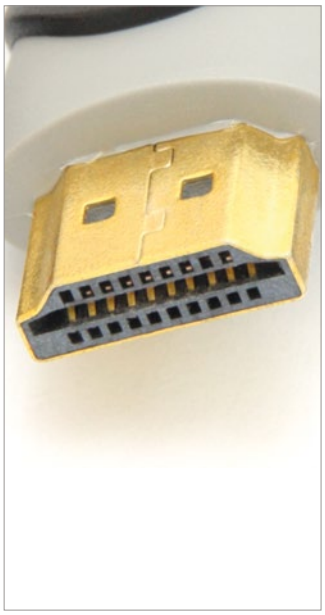
umicore Electroplating

AURUNA® 8100

GOLD COBALT ELECTROLYTE (+ AURUNA® INHIBITOR 2)



High-Speed Electrolyte for Hard Gold Coatings

AURUNA® 8100 is used for depositing hard gold coatings in special high-speed equipment. The weakly acidic high-speed electrolyte has a wide operating range with easy bath maintenance and extremely high plating speed.

AURUNA® 8100 was specifically developed for the automatic high-speed gold-plating in equipment for selective plating and continuously working reel-to-reel lines. Due to vigorous electrolyte agitation (flow, spray), it allows the working at high current densities with stable long-time behaviour. It can be also operated as a gold strike electrolyte.

The deposits are solderable, low in pores, ultra-bright, hard and abrasion-resistant. They have a constantly low contact resistance. Therefore the electrolyte is excellently suitable for the gold-plating of electronic components such as connectors, contacts and edge connectors on printed circuit boards.

The optional use of the AURUNA® Inhibitor 2 offers the possibility of a reduced gold consumption of up to 15%. The inhibitor allows sharp borderlines - this reduces the size of the run-off area. Of course, the layer properties remain unaffected. The inhibitor can be removed without any residue after the plating by cleaning with activated carbon.

Advantages

- Weakly acidic high-speed electrolyte
- Wide operating range
- Extremely high plating speed
- Low-pore, solderable, hard and abrasion-resistant coatings
- For electrical contacts
- Classification according to ASTM B-488-01 Type I-II, Code C-D
- The coatings are RoHS compliant
- For use in high-speed equipment
- Gold savings of up to 15% by inhibitor usage

Applications

- Connectors
- Electrical contacts
- Edge connectors on printed circuit boards

AURUNA® 8100

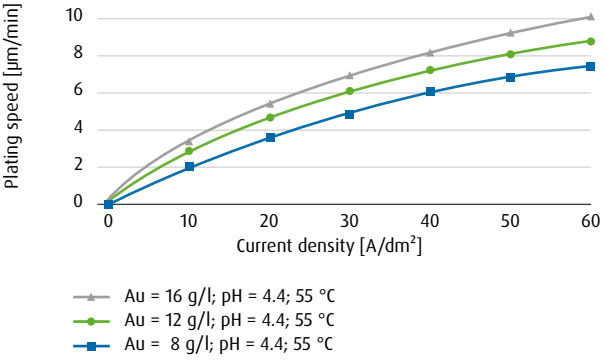
GOLD COBALT ELECTROLYTE (+ AURUNA® INHIBITOR 2)

TECHNICAL SPECIFICATIONS

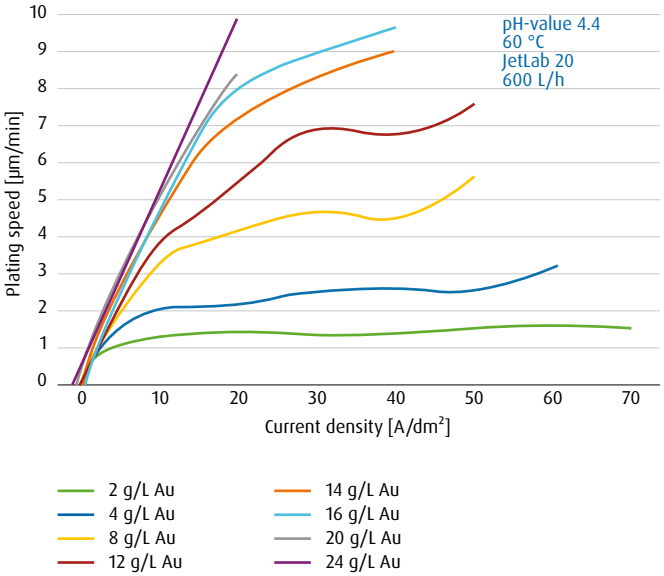
Electrolyte characteristics	
Electrolyte type	Weakly acidic
Metal content	12 (2 - 30) g/l Au
pH value	4.2 - 4.6
Operating temperature	55 (45 - 65) °C
Current density range	2 - 80 A/dm² 80 A/dm² in JetLab
Plating speed	0.3 - 11 µm/min
Anode material	Pt-Ti (type PLATINODE® Pt/Ti)

Coating characteristics	
Coating	Gold-cobalt
Alloy composition (according to ASTM B 488-01, Typ I-II, Code C-D)	Approx. 99.7 wt. % Au 0.1 - 0.4 wt. % Co
Colour of deposit	Deep yellow
Brightness	Ultra-bright
Hardness of deposit HV 0.015 (Vickers) approx. values	120 - 200 HV
Max. coating thickness	10 µm
Density of the coating	Approx. 17 g/cm³

Deposition on Brush Module (Flow 60 l)



Deposition at Different Gold Concentration (2 - 24 g/L Au)



Umicore Galvanotechnik GmbH
Klarenbergstrasse 53-79
73525 Schwaebisch Gmuend (Germany)

Technical Support: Phone +49 7171 607-305
Sales Department: Phone +49 7171 607-204

www.ep.umicore.com

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