



Version: 23 August 2021



AURUNA[®] 8400

GOLD NICKEL ELECTROLYTE



High speed electrolyte for hard gold plating

AURUNA[®] 8400 is used for the deposition of hard gold coatings in special high-speed equipment. The electrolyte is weakly acidic, citrate-free and has a wide working range with simple bath maintenance.

The deposited coatings are high-brightness, low-porosity, solderable, hard and abrasion-resistant, and exhibit consistently low contact resistance. They are therefore ideally suited for electrical components such as contacts, plugs and connectors on printed circuit boards.

AURUNA[®] 8400 was developed for high-speed gold plating in selective plating lines and continuous reel-to-reel systems. It shows stable long-term behavior even with strong electrolyte movement (flow, spray) and high current densities. AURUNA[®] 8400 can also be used as a pre-gold electrolyte.

The optional use of AURUNA[®] Inhibitor 2 offers the possibility of reduced gold consumption of up to 15%. The inhibitor results in sharp edge delineations - thus reducing the run-out zone width. Of course, the coating properties remain unaffected. The inhibitor can be removed without residue after coating by activated carbon cleaning.



Advantages

- Very high plating speeds
- Lower gold content possible
- Exceptionally wide working range
- Stable long-term behavior
- Easy electrolyte maintenance
- Excellent coating properties

Applications

- Connectors
- Electrical contacts
- Connector strips on printed circuit boards

AURUNA[®] 8400

GOLD NICKEL ELECTROLYTE

TECHNICAL SPECIFICATIONS

Electrolyte characteristics		Coating characteristics	
Electrolyte type	weakly acidic	Coating	Gold nickel
Metal content	12 (2 - 18) g/l Au	Purity	approx. 99.7 wt.% Au approx. 0.3 wt.% Ni
pH value	4.2 - 4.4	Colour of deposit	yellow
Operating temperature	45 - 60 °C	Brightness	bright to highly bright
Current density range	plant-dependent	Hardness of deposit HV 0.015 (Vickers) approx. values	approx. 130 - 190 HV
Plating speed	plant-dependent up to 12 µm/min	Max. coating thickness	10 µm
Anode material	Pt/Ti (PLATINODE [®] Pt/Ti) or MMO 177	Density	approx. 17 g/cm ³

YOUR CONTACT

Do you have a specific question or would you like a no-obligation quote calculation?
Our specialist will be happy to help you with any technical questions you might have.



Markus Legeler
Manager Sales International

Mail: markus.legeler@eu.umicore.com
Phone: +49 (0) 7171 607 - 204

