



Pd

Ni

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PALLUNA® ACF-100

Palladium-Nickel Electrolyte



High-Speed Deposition for Reel-to-reel Plating

The new palladium nickel electrolyte PALLUNA® ACF-100 has all the technical advantages of other electrolytes - but without the smell of ammonia. The deposited layers are ductile, crack-free and resistant to abrasion. Furthermore, PALLUNA® ACF-100 has the cost benefit on its side: With comparable contact properties to those of hard gold, the palladium-nickel layer is by far the less expensive alternative.

PALLUNA® ACF-100 is a high-speed electrolyte, free of ammonia and chloride, for depositing a bright palladium-nickel-alloy in reel-to-reel lines (selective dipping, jet plating, brush plating) and in tabplaters.

Depending on the operation conditions, the electrolyte deposits alloy coatings with approx. 80 % of Pd. The alloy composition is largely independent of the current density. Electrolyte maintenance without ammonia and chloride. Breakdown products could be removed by carbon treatment easily. Regular, discontinuous active carbon treatment is required.

A brightener specially developed for PALLUNA® ACF-100 enables analytical electrolyte control. Thus, the increased requirements for new quality standards and stricter guidelines such as IATF 16949 can also be mapped by a compliant process control.



Advantages

- Free from ammonia and chloride
- No smell nuisance by ammonia gas
- Reduced corrosion of equipment
- Long lifetime of anodes
- Ductile coatings
- Constant alloy composition
- Reliable analysis and electrolyte control

Applications

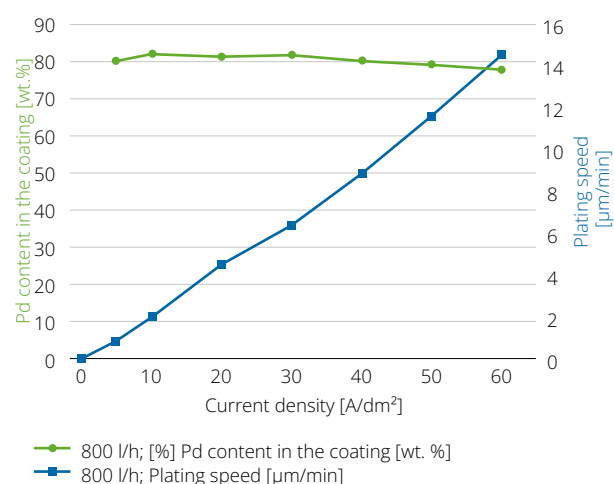
- Electrical contacts for Connector Industry
- Hardgold replacement

Technical Specifications

Electrolyte characteristics	
Electrolyte type	Free from ammonia and chloride
Metal content	15 g/l Pd, 16 g/l Ni
pH value	5.5 at 60 °C
Operating temperature	60 °C
Current density range	Up to 70 A/dm ²
Plating speed	Up to 15 µm/min
Anode material	MMO (type PLATINODE® 187 SO)

Coating characteristics	
Coating	Palladium-Nickel
Alloy composition	80 wt.% Pd 20 wt.% Ni
Colour of deposit	White
Brightness	Bright
Hardness of deposit HV 0.015 (Vickers) approx. values	500 - 550 HV
Max. coating thickness	10 µm
Density	10.8 g/cm ³
Elongation	Approx. 5 %
Bendability (10 mm mandrel)	2 µm crack-free

Deposition Speed, Alloy Composition vs. Current Density



PALLUNA® ACF-100
 JetLab4: 15 g/l, 16 g/l Ni; pH 5.5; 60°C; 1.11 g/cm³; 800 l/h

Crack- and Void-Free Coating



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.



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