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# PALLUNA® ACF-200

## PALLADIUM-NICKEL ELECTROLYTE



### For PCB Applications as a Replacement for Hard Gold

PALLUNA® ACF-200 is operated without ammonia, thus avoiding offensive smells caused by pungent ammonia gases. Since no chloride is used in the electrolyte, the lifetime of the anodes is considerably longer and equipment corrosion is strongly reduced. By means of continuous active carbon purification, interfering organic decomposition products can be effectively removed from the electrolyte.

Depending on the operating conditions, the electrolyte deposits alloy coatings containing approx. 80 % of palladium. The palladium-nickel layers are hard, resistant to wear and corrosion, they are characterized by good ductility and low internal stress. In combination with flash gold, bondabilities comparable to those of soft gold surfaces can be reached.

PALLUNA® ACF-200 has the cost advantage on its side: With contact properties similar to those of hard gold, palladiumnickel is the clearly less expensive alternative.



### Advantages

- Palladium-nickel electrolyte free from ammonium and chloride for printed circuit board applications
- No offensive smell caused by ammonia gas
- Longer lifetime of anodes
- Reduced equipment corrosion
- Ductile and crack-free coatings
- Excellent abrasion resistance
- Constant alloy composition of the coatings
- Solder- and bondability, especially with goldflash

### Applications

- Printed circuit boards
- Contacts on plug-in cards
- Smartcards

# PALLUNA<sup>®</sup> ACF-200

## PALLADIUM-NICKEL ELECTROLYTE



### TECHNICAL SPECIFICATIONS

Electrolyte characteristics	
Electrolyte type	Free from ammonia and chloride
Metal content	8 g/l Pd, 7 g/l Ni
pH value	5.2
Operating temperature	62 °C
Current density range	Up to 4 A/dm <sup>2</sup>
Plating speed	0.39 µm/min at 2 A/dm <sup>2</sup>
Anode material	MMO (type PLATINODE <sup>®</sup> 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	530 HV
Coating density	10.8 g/cm <sup>3</sup>
Elongation	Approx. 5 %
Bendability (5 mm mandrel)	2 µm crack-free
Solderability	Good

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

