



# PLATUNA® N1

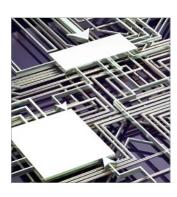
### PLATINUM ELECTROLYTE - FOR TECHNICAL APPLICATIONS



#### Bright and white coatings for electrical contacts

For wearables and cell phones, sales arguments such as a long service life and compatibility with fast charging devices are becoming increasingly crucial. But gold-plated charging contacts and connectors cannot meet these expectations because they corrode through contact with salt water, sweat, etc. RHODUNA® Alloy (rhodium-ruthenium) has therefore been established for years. Due to the current high price, however, we are looking for alternatives.

PLATUNA® N1 is a pure platinum plating solution, which deposits white and bright coatings. The layers itself maintain good electrical properties, high abrasion resistance and excellent corrosion resistance. The hardness of the platinum coating is approx. 500 HV, and the purity reach up to 99.9 wt.%. A platinum layer also offers a huge cost advantage at current precious metal prices.



#### Advantages

- · Less expensive than Rhodium Alloy layers
- $\cdot$  High protection against corrosion
- · Bright, white and brilliant coatings
- · Wide operating range
- · The coatings are RoHS compliant
- · For technical applications
- · Crack free up to 2 µm
- · Suitable for rack, barrel and reel-to-reel plating

#### **Applications**

- · Smartwatches
- · Headphones (In-Ears)
- · Mobile phones
- · Fitness tracker
- Plug contacts
- · Pogo-Pins



## PLATINUM ELECTROLYTE - FOR TECHNICAL APPLICATIONS

## **TECHNICAL SPECIFICATIONS**

Electrolyte characteristics	
Electrolyte type	Strongly acidic
Metal content	4 (2 - 12) g/l Pt
pH value	< 1
Operating temperature	35 (30 - 60) °C
Current density range	3 (2 - 20) A/dm²
Plating speed	up to 1 µm/min
Anode material	MMO 187 SO

Coating characteristics	
Coating	Pure platinum
Purity	99.9 wt.% Pt
Colour of deposit	White
Brightness	Bright
Hardness of deposit HV 0.015 (Vickers)	approx. 500 HV
Max. coating thickness	2 µm
Density	approx. 21 g/cm³

## 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

