

## omicore

# PALLUNA® 4700 PALLADIUM NICKEL ELECTROLYTE



#### For hard and wear resistant coatings

PALLUNA® 4700 is a chloride-free, ammonia-reduced high-speed electrolyte for the deposition of a semi-bright to bright palladium-nickel alloy in reel-to-reel lines (selective dipping, jet plating, brush plating) and tabplaters.

Depending on the operating conditions, the electrolyte deposits alloy layers with approx. 80% of Pd. The alloy composition is largely independent of the current density.

The hard and wear-resistant layers are ductile, with low internal stresses and exhibit good corrosion resistance.



#### Advantages

- $\cdot$  Chloride-free
- pH and ammonia reduced
- High deposition rate
- Ductile coatings
- Constant alloy composition

#### **Applications**

- Industrial connectors (data and signal transmission)
- IT connectors (e.g. USB-C)

# PALLUNA® 4700 palladium nickel electrolyte

### **TECHNICAL SPECIFICATIONS**

Electrolyte characteristics	
Electrolyte type	Chloride-free ammoniacal
Metal content	20 g/l Pd 15 g/l Ni
pH value	7.7
Operating temperature	40 °C
Current density range	up to 50 A/dm <sup><math>2</math></sup> in JetLab
Plating speed	up to 12 µm/min in JetLab
Anode material	Platinized titanium (e.g. PLATINODE®)

Coating characteristics	
Coating	Palladium nickel
Purity	80 wt.% Pd 20 wt.% Ni
Brightness	Semi-bright to bright
Hardness of deposit HV 0.015 (Vickers) approx. values	approx. 550 HV kp/mm² (5mN load)
Density	ca. 10.8 g/cm <sup>3</sup>

### **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



The information and statements contained herein are based on our experience in the fields of research and applied technology and are believed to be accurate at the time of publication, but - unless agreed in writing - we make no warranty with respect thereto, including but not limited to any results to be obtained. This product information sheet in the English language prevails any translation.

www.mds.umicore.com