

# Electroplating

# PALLUNA® 4700 PALLADIUM NICKEL ELECTROLYTE



#### For hard and wear resistant coatings

PALLUNA® 4700 is a chloride-free ammoniacal 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
- $\cdot\,$  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 quotation? Our specialist will be happy to help you with any technical questions you might have.



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