

# Electroplating

# PALLUNA® 459 PALLADIUM ELECTROLYTE



#### The intermediate layer as the perfect diffusion barrier for jewelry

PALLUNA® 459 deposits brillant, bright and extremely low-pore pure palladium layers. It can be used as pre-palladium, as a diffusion barrier before rhodium plating or gold plating or as a final layer for decorative applications.

The palladium electrolyte is very easy to use. Due to the excellent throwing power, expensive precious metal can be saved, making this electrolyte economically attractive.

THE OWNER WHEN THE OWNER
(Par)

#### Advantages

- Light-white pure palladium coatings
- Corrosion resistant
- Ductile layers for decorative applications
- Bright, low-pore coatings
- $\cdot \,$  Excellent throwing power
- Easy handling of the electrolyte
- Crack-free layers up to 0.5 µm possible
- Suitable for rack and barrel

#### Applications

- Jewelry
- Writing implements
- Watches
- Spectacle frames
- Accessories

## PALLUNA® 459 BRIGHT SILVER ELECTROLYTE

### **TECHNICAL SPECIFICATIONS**

Electrolyte characteristics		
Electrolyte type	ammoniacal	
Metal content	1.5 - 2 g/l	
pH value as pre-palladium as final layer	7 - 7.2 8.5 - 9	
Operating temperature	25 - 30 °C	
Current density range	approx. 0.5 A/dm <sup>2</sup>	
Plating speed	up to 0.07 µm/min	
Anode material	MMO (type PLATINODE® 167)	

Coating characteristics		
Coating	Palladium	
Purity	99.9 wt.% Pd	
Colour of deposit	white	
Brightness	Bright, brilliant	
Hardness of deposit HV 0.015 (Vickers) approx. values	230 - 250 HV	
Max. coating thickness	0.5 µm	
Density	11.8 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



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.ep.umicore.com