



# RHODUNA® PT ONE

# RHODIUM-PLATINUM-ELECTROLYTE



### PT ONE - Unique

RHODUNA® PT ONE is unique in our product portfolio in many ways. Like its big brother RHODUNA® PT, the ONE variant is an economical alternative for pure rhodium. However, with the difference that RHODUNA® PT ONE is designed for small scale and the metal content is reduced to one gram per liter. This allows extremely economical rhodium plating starting with the first liter of electrolyte - and with almost constant layer properties. Additional benefits include easy handling thanks to a simple work area and the reduction of the necessary components to an absolute minimum - apart from the initial concentrate, only water is required for electrolyte makeup.

A RHODUNA® PT ONE layer consists of 20% rhodium and 80% platinum. Nevertheless, the high-quality alloy cannot be distinguished from that of a pure rhodium electrolyte, even with a trained eye. Due to the high social value of platinum, your product simultaneously gains psychological value and its price acceptance increases significantly - conversely, for you as a producer, a coating with RHODUNA® PT ONE is far more attractive in terms of price than one with a pure rhodium electrolyte.



#### **Advantages**

- · White and bright rhodium-platinum coatings
- · Uniform layer thickness
- · Crack-free up to 0,3 μm
- · Wide current density range
- · Abrasion-resistant
- · Easy handling
- · Less expensive than pure rhodium layers
- · Good throwing power and minor porosity
- · Good covering speed
- · Suitable for rack plating

#### **Applications**

- Jewelry
- Watches
- Writing implements
- · Spectacle frames
- · Bathroom fittings

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# **TECHNICAL SPECIFICATIONS**

Electrolyte characteristics	
Electrolyte type	Strongly acidic
Metal content	0.3 g/l Rh 0.7 g/l Pt
pH value	< 1
Operating temperature	45 (40 - 50) °C
Current density range	3,0 (2,0 - 5,0) A/dm <sup>2</sup> In case the layer is not white enough, just increase the current density (voltage)
Plating speed	approx. 0.05 µm/min approx. 3.5 A/dm²
Anode material	Pt/Ti MMO 187SO

Coating characteristics	
Coating	Rhodium-platinum
Alloy composition	20 % Rh 80 % Pt
Colour of deposit	White
Brightness	Bright
Hardness of deposit HV 0.015 (Vickers) approx. values	approx. 600 HV
Density of the coating	approx. 18.7 g/cm³

#### Easy handling

Using the example of a small-scale makeup (1 liter of electrolyte)









#### Video Tutorial

In a short video on our product page our technical service shows the application and explains the advantages of RHODUNA® PT ONE



# 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.



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