



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.



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 ² /// 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/dm ²
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	approx. 600 HV
Density of the coating	approx. 18.7 g/cm ³

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 throw pdf-rowing power and minor porosity
- Good covering speed
- Suitable for rack plating

Applications

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

Introduction and Handling

In a compact introduction, Joachim Grimm (Sales Manager & Technical Services) summarises the advantages of RHODUNA® PT ONE, an economical alternative for the rhodium coating of decorative surfaces. However, with the difference that RHODUNA® PT ONE is designed for small scale. Despite its high quality, the alloy offers a price advantage of up to 65% compared to pure rhodium at market launch.

Furthermore, our expert shows how easy the handling of the electrolyte is. He will briefly explain the standard equipment required and, using a chain and a sheet of metal, show how quickly you can achieve a white shiny and abrasion-resistant rhodium alloy layer for your product.



Joachim Grimm gives a short introduction to RHODUNA® PT ONE and shows the easy handling with two examples.

Watch on YouTube



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