Rh Pt

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umicore

RHODUNA® PT

RHODIUM-PLATINUM-ELECTROLYTE

Irresistible – Rhodium with the allure of platinum

Rhodium creates a brilliant white surface on decorative products. Platinum has enjoyed an incredibly stable price for a number of years, and its name is desirable for all buyer groups. Imagine an alloy that combines the benefits of both precious metals.

A RHODUNA® PT layer is built up of rhodium and platinum one half each, notwithstanding that the high-quality alloy can not be distinguished from that of a pure rhodium electrolyte, even with a trained eye. Due to the high societal significance of platinum, your product also gains in psychological value and its price acceptance increases significantly – conversely, for you as a producer a coating with RHODUNA® PT is more attractively in price than that with a pure rhodium electrolyte.

Alternatively, the alloy composition of rhodium and platinum can be variably adjusted. Compositions of 80 % platinum to 20 % rhodium, and vice versa, are possible - and all this with constant layer properties. Therefore you always have the price advantage on your side.

Advantages

- White and bright rhodium-platinum coatings
- Uniform layer thickness
- Crack-free up to 0,3 µm
- Wide current density range
- Abrasion-resistant
- Less expensive than pure rhodium layers
- Minor porosity and good throwing power
- Good covering speed
- For rack and barrel plating

Applications

- Jewellery
- Watches
- Writing implements
- Eyeglasses
- Fittings

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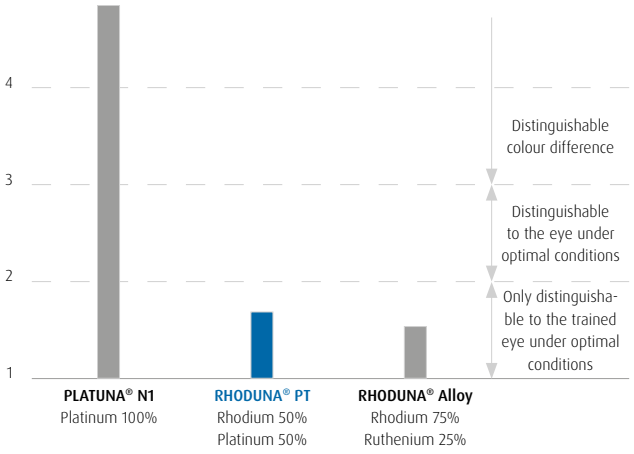
TECHNICAL SPECIFICATIONS

Electrolyte characteristics	
Electrolyte type	Strongly acidic
Metal content	0,6 - 1,5 g/l Rh 0,6 - 1,5 g/l Pt
pH value	< 1
Operating temperature	45 (40 - 50) °C
Current density range	3,0 (2,0 - 4,0) A/dm²
Plating speed	Approx. 0,1 µm/min 3 A/dm²
Anode material	MMO (type PLATINODE® 187 SO)

Coating characteristics	
Coating	Rhodium-platinum
Alloy composition	20 - 80 % Rh 20 - 80 % Pt
Colour of deposit	White
Brightness	Bright
Max. coating thickness	up to 0,3 µm
Hardness of deposit HV 0.015 (Vickers) approx. values	600 HV (at 50 % Rh and 50 % Pt)
Density of the coating	Approx. 15,7 g/cm³ (at 50 % Rh and 50 % Pt)

ΔE colour deviation

compared to RHODUNA® Diamond Bright pure rhodium electrolytes



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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