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PLATUNA[®]- ALLOY RU

PLATINUM RUTHENIUM ELECTROLYTE



Cost-saving electrolyte for brilliant jewelry

With the strongly acidic alloy electrolyte PLATUNA[®]-Alloy RU, smooth, shiny and crack-free platinum-ruthenium coatings can be deposited up to a layer thickness of 0.5 μm . The deposited coatings are characterized by brilliant gloss and, in contrast to conventional platinum coatings, do not exhibit a yellow tint.

The advantage of the electrolyte is mainly the cost saving due to the ruthenium content. This is because ruthenium is still the cheapest metal among the platinum group metals. Furthermore, the electrolyte has a low sulfuric acid content and is therefore less aggressive to the coating substrate. The deposition rate is independent of the current density, which leads to an optimum layer thickness distribution. No precipitation occurs and the platinum concentrate does not have to be stored in the refrigerator.



Advantages

- Excellent brightness without yellow tint
- Longer durability
- High abrasion resistance
- Current density independent
- Easy handling - no cold storage and no precipitation

Applications

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

PLATUNA[®] ALLOY RU

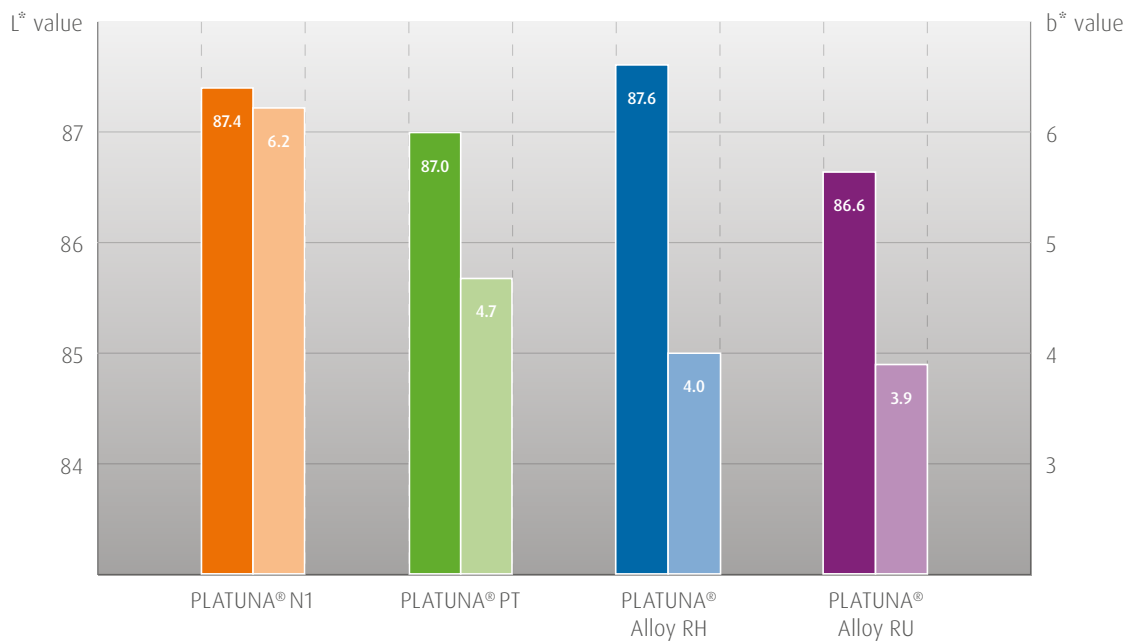
PLATINUM RUTHENIUM ELECTROLYTE

TECHNICAL SPECIFICATIONS

Electrolyte characteristics	
Electrolyte type	Strongly acidic
Metal content	1.0 (0.8 - 1.2) g/l Pt 1.0 (0.8 - 1.2) g/l Ru
pH value	< 1
Operating temperature	60 (55 - 65) °C
Electrolyte density	approx. 1.017 g/cm ³
Current density range	3 (0.5 - 10) A/dm ²
Plating speed	approx. 0.06 µm/min at 3 A/dm ²
Deposition rate	approx. 4 mg/Amin at 3 A/dm ²

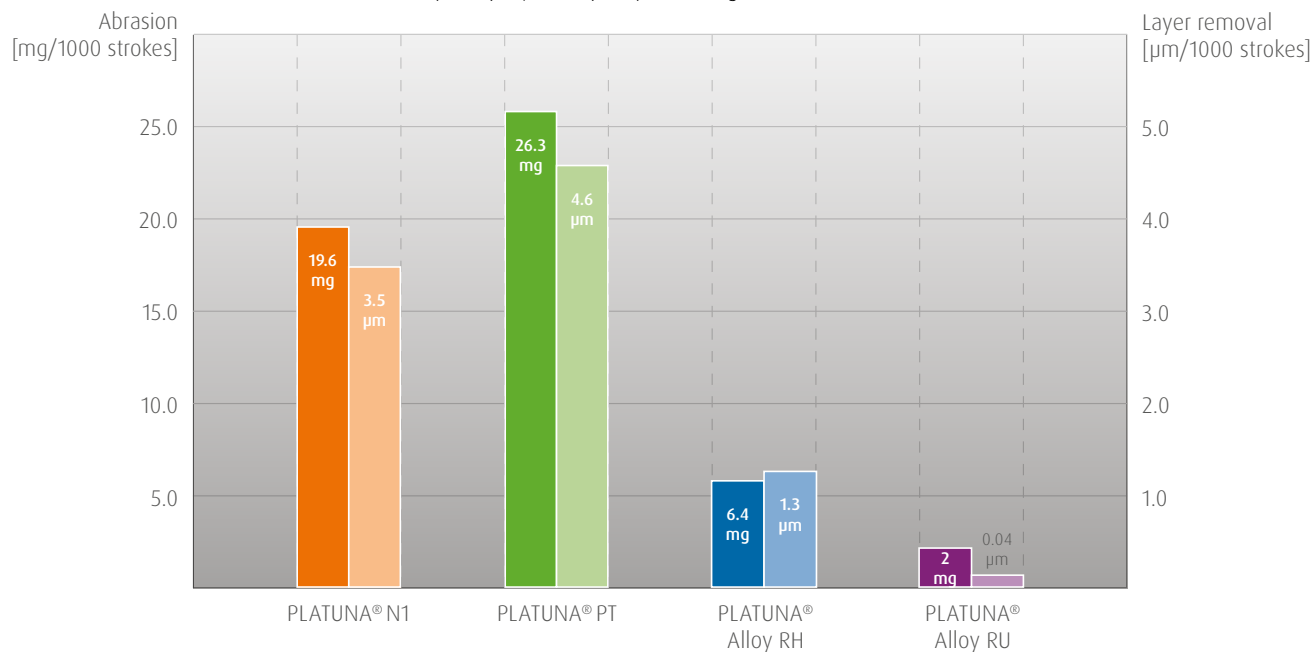
Coating characteristics	
Coating	Platinum ruthenium
Purity	approx. 80 % Pt approx. 20 % Ru
Colour of deposit	White
Brightness	Bright, brilliant
Hardness of deposit HV 0.015 (Vickers) approx. values	not measurable, approx. 500 HV
Max. coating thickness	approx. 0.5 µm
Density	approx. 18.7 g/cm ³

Color measurement L* and b* value
Neutral gray axis and blue-yellow axis



Wear test (Bosch-Weinmann)

1000 double strokes for 2 µm layer / emery strips with a grit size of 1000



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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Passion for
perfect surfaces

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