

# RHODUNA®-Alloy 1

## Rhodium-Ruthenium Electrolyte

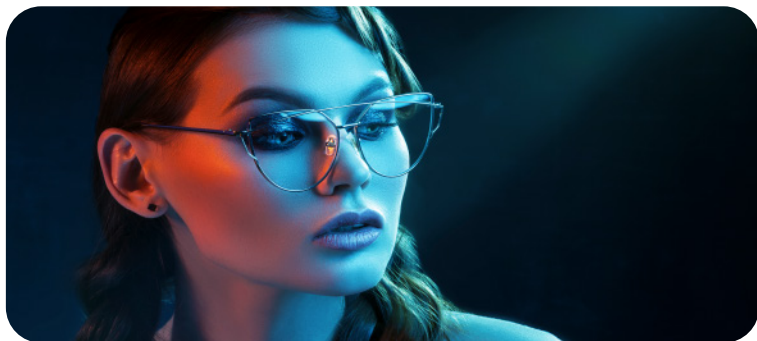
Precious metal-based, significantly lower cost vs. rhodium



**Rhoduna-Alloy 1 is the world's first** galvanic rhodium alloy, and the first pure white electrolytic rhodium alloy. Formulated from rhodium and ruthenium, its whiteness and performance is equal to the highest-quality rhodium coatings, with the significant added benefit of greater smoothness, – and durability.

**Rhoduna-Alloy 1 deposits directly** on nickel, palladium, silver and gold; it exhibits good throwing power for complex geometries. Deposit thickness can be modified without altering its color; deposits are crack-free up to 1  $\mu\text{m}$ .

**Rhoduna-Alloy 1 is a proven alternative** to pure rhodium coatings, at a significantly lower cost. It is ideally suited to fine jewelry and other personal accessories, high-end home and aircraft interiors, and electronic connectors.



### Specifications

#### Alloy composition

75 wt. % Rh, 25 % Ru

#### pH value

< 1

#### Operating temperature

104-122° F

#### Current density range

4.0 (3.0 - 5.0) A/dm<sup>2</sup>

#### Plating speed

Approx. 0.2  $\mu\text{m}/\text{min}$  at 4.0 A/dm<sup>2</sup>

#### Anode material

Platinode® 187, an MMO (mixed metal oxide) anode engineered to minimize the oxidation of organic additives

#### Hardness

600 - 900 HV

### Other characteristics

- Highly uniform layer thickness
- Wide current density range
- Extremely abrasion-resistant
- Significantly less expensive than pure rhodium
- Ideal for parts with complex geometries

### Also from Uyemura

**Ruthuna® 479 Black** ruthenium electrolyte produces a deep, dark plated surface that closely resembles fine onyx, and appears to reflect and absorb light simultaneously. On large jewelry pieces, it is a magnificent offset for gold; it is also a sophisticated choice for upscale eyewear. Ruthuna 479 can be adjusted to achieve many different shades of black.

*Rhoduna, Ruthuna and Platinode are trademarks of Umicore GmbH. These products are available throughout North America exclusively from Uyemura.*



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