



JEWELRY PLATING

RH2I

RHODIUM READY TO USE PLATING BATH 2G/L WHITE COLOR

GENERAL INFORMATION

RH2I is a ready-to-use rhodium plating bath with unparalleled characteristics. The properties of the deposit and its degree of whiteness make this plating bath a point of reference for all goldsmiths in search of unparalleled finishing excellence for their jewellery items. The higher degree of whiteness is due to a more compact deposition with respect to those achieved with the corresponding W solutions at the same dipping times and amperages. As consequence, the deposition affords a higher white degree but the consumption in terms of Rhodium results to be 30% higher at the same working time.



Product form

Metal concentration	2 g/l (Rh)
Solution form	Liquid
Plating solution color	Orange
Storage time	2 years
Volume	1 liter

Deposit data

Solution appearance	Shiny
Purity (%)	99.9
Hardness [HV 0.01]	800-900
Density [g/cm ³]	12.4
Plating solution color	White
Thickness range [μm]	0,02 - 0.50

Operating data	RANGE	OPTIMAL
Voltage [V]	2-6	3.0
Current density [A/dm ²]	0.5-10	3.0
Working temperature [°C]	20-65	40 - 60
Exposure time (sec)	15 - 120	40.0
Cathode efficiency [mg/Amin]	4-12	6.0
Anode-cathode ratio	1:1-4:1	2:1
Anode type	Platonized titanium	
Agitation	Moderate	

Metal concentration	METAL	RANGE (g/l)	OPTIMAL (g/l)
	Rhodium	0.6 - 5.0	2.0

Color coordinates

L*	90.0
a*	0.9
b*	1.7
c*	1.9
Yellow index	5.4

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PRODUCT APPLICATIONS

RH2I can be used for both flash plating and thickness plating. It is particularly suitable in applications where an extremely white colour is required for use as a base for the setting of brilliant-cut diamonds. **RH2I** can be deposited directly on Silver, Palladium, Gold, Copper, Nickel and its alloys; an intermediate deposit of Nickel and Gold is necessary before it can be used to plate Tin, Lead, Zinc, Cadmium, Aluminium and Iron. **RH2I** stands out for its excellent deposition efficiency, even at room temperature, which leads to a reduction in treatment times, working temperature and materials and a consequent increase in productivity.

SOLUTION PREPARATION

The product coded **RH2I** is already ready-to-use plating bath at the concentration of 2 g/l.

EQUIPMENT

It is more practical to use glass containers for quantities up to 5 litres, whereas for larger quantities it is best to install PTFE or polypropylene plants equipped with:

- a current rectifier with an ammeter and voltmeter, with low residual AC (<5%).
- amp/min counter.
- platinum-coated titanium anodes, coated with 2.5 µ of platinum.
- magnetic drive filter pumps with 5-15 µ cartridge.

N.B. Before use boiling and washing of the cartridges with demineralized water is recommended to prevent organic contamination.

BATH MAINTENANCE

Small-sized rhodium baths (up to 2-3 litres) can be used until the rhodium solution is completely exhausted without adding any rhodium concentrate.

SUPPLEMENTARY INFORMATION**Packaging**

The product comes in a high-density polyethylene bottle.

Demineralized water

To prevent contamination of the bath both during its preparation and any subsequent replenishing operations, use demineralized water with a conductivity of less than 3µS/cm (containing no traces of any organic compounds, Silicon or Boron). To achieve maximum deposit quality we recommend using our high-grade purity WATER.

Agitation of the solution and/or pieces

For maximum performance, particularly in terms of colour, do not use excessively vigorous agitation. Gentle agitation will suffice to remove the hydrogen from the pieces. So, for processing tanks containing considerably large volumes agitation of the solution using a magnetic drive filter pump of not too high a capacity is recommended, while for containers of modest size moderate agitation is adequate.

Additives

The additives responsible for the colour and brightness of the deposit are contained and correctly batched in the "Ultrabright Rhodium" product line, so standard strengthening additives will be enough to maintain optimum levels.

CORRELATED PRODUCTS:

RH2I: ready-to-use solution (2 g/l package)

RH2FI: make-up concentrate (2 g/100 ml package)

RH5RI: replenisher solution (5 g/110 ml package)

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SAFETY INFORMATION

Being an acidic solution, the ready-to-use Ultrabright Rhodium RH2I galvanic rhodium bath is an irritant to the skin, eyes and mucous membranes. Caution should be exercised when using the product, avoiding contact with the eyes and skin. Use gloves and safety goggles. For further information please refer to the relative safety sheet.

DISCLAIMER

All recommendations and suggestions in this bulletin concerning the use of our products are based upon tests and data believed to be reliable. Since the actual use by others is beyond our control, no guarantee expressed or implied, is made by Legor Group, its subsidiaries or distributors, as to the effects of such use or results to be obtained, nor is any information to be construed as a recommendation to infringe any patent.