



JEWELRY PLATING

RH2XL

WHITE RHODIUM FOR BATH PLATING 2 G/L READY-TO-USE

GENERAL INFORMATION

RH2XL is a ready-to-use white rhodium for bath plating. The excessive throwing power of this rhodium plating electrolyte allows for easy distribution in difficult to reach places making it ideal for substrates with a lot of detail. This formulation has been developed specifically for items with a lot of stones as in micro-pave or in the case where the stones have been wax-set prior to casting. The chemical make-up of this rhodium enables the metal to penetrate below the stone producing a compact white deposit. This deposit grants the stone a more luminous base which allows the stone to appear more brilliant and visually appealing.



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
pH	< 1	0.5
Voltage [V]	2-6	3.5
Current density [A/dm ²]	0.5-10	1.5
Working temperature [°C]	20-65	40 - 60
Exposure time (sec)	15 - 120	50.0
Cathode efficiency [mg/Amin]	4-12	8.0
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*	90.5
a*	0.8
b*	1.5
c*	1.6

**RH2XL**

WHITE RHODIUM FOR BATH PLATING 2 G/L READY-TO-USE

PREPARATION

RH2XL is a ready-to-use galvanic bath at the concentration of 2 g/l. No preparation is required.

EQUIPMENT

Working vessel: Pyrex glass / PVC / polypropylene.

Power supply: DC current rectifier with low residual AC (<5%).

Heating element.

Anode Type Platinized Titanium [1.5-2.5 µm].

For larger bath volumes:

Magnetic driven filter pumps with 5-15 µm cartridge (before use, boil and wash the cartridges with demineralized water for 3 hours to prevent organic contamination).

Amp/min counter.

PRE TREATMENT

RH2XL can be deposited directly onto Silver, Palladium, Gold, Nickel and its alloys. An intermediate deposit or precious metal plating strike is necessary before depositing onto Tin, Lead, Zinc, Cadmium, Aluminum and Iron.

POST TREATMENT

The electrolyte should be removed from the surface as quick as possible. Wash off the bath residual in a recovery rinse (still rinse). Rinse the parts in circulating deionized water and dry.

WATER PURITY

To prevent contamination of the bath both during its preparation and any replenishing operations, use demineralized water with a conductivity of less than 3µS/cm (containing no traces of organic compounds, Chlorine, Silicon, or Boron).

BATH MAINTENANCE

Small-sized **RH2XL** (until 5 liters) can be used until the rhodium solution is completely exhausted without adding any rhodium concentrate replenisher solution. For larger volumes add **RH5RXL** replenisher solution to restore the optimal rhodium concentration. For perfect electrolyte performance it is advisable to maintain the rhodium concentration at values not lower than 80% of the initial concentration; for example, with a bath operating at a concentration of 2 g/l, additions should be done after a consumption of 0.4 g/l of rhodium. Keep in mind that at optimum conditions a bath working at 2 g/l deposits about 8-10 mg of Rh per ampere-minute. Given the cost of rhodium and to have a precise evaluation of the metal consumption it is advisable to perform periodic analytical checks.

SUPPLEMENTARY INFORMATION

For maximum performances, particularly in terms of color, do not use excessive agitation. Gentle agitation will be sufficient to remove the gaseous hydrogen developed closed to the pieces to be plated. So that, for processes which involve large volumes, agitation of the solution using a magnetic filter pump with not too high capacity is recommended; while for smaller tanks a moderate agitation of the pieces is adequate. Higher current density and voltage is advantageous to achieve the best brightness and luminosity. For excellent results with a very short plating time we recommend the following operating data:

- VOLTAGE: 4 V
- TEMPERATURE: 60°C
- PLATING TIME: 15 - 20 seconds.

CORRELATED PRODUCTS:

RH2FXL: Rhodium for plating solution concentrate 2g/250ml

(For ready to use solution: dilute **RH2FXL** in 750ml of demineralized water)

RH5RXL: Rhodium XL replenisher 5g/100ml (addition of 20ml of **RH5RXL** restores 1g of rhodium)

RH2RXL-C: Correction replenisher per Rhodium XL 2g/100ml (addition of 50ml of **RH5RXL** restores 1g of rhodium)

**SAFETY INFORMATION**

Being an acidic solution, the electrolyte is corrosive therefore 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. Keep away from cyanide based chemicals. For further information please refer to the relative MSDS.

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.