

Technical data sheet and product guideline

RH2B

Black rhodium for bath plating 2 g/l ready-to-use



Color coordinates



L	57.9
a	0.4
b	1.3
c	1.3

Product form

Metal concentration	2g/l (Rh)
Form	Liquid
Material color	Black
Storage time	2 years
Volume	1 liter

Operating data

	Range	Optimal
Voltage (V)	1.8-3	2.5
Current density (A/dm ²)	1-1.5	1.2
Working temperature (°C)	20-35	25-30
Exposure time (sec)	60-180	120
Cathode efficiency (mg/Amin)	15	15
Anode/cathode ratio	1:1-4:1	2:1
Anode type	Platinized titanium	
Agitation	Moderate	

Metal concentration

Metal	Range (g/l)	Optimal (g/l)
Rhodium	0.6-5.0	2.0

Deposit data

Hardness (HV 0,01)	700
Density (g/cm ³)	11.2
Thickness (um)	0.02-0.4
Appearance	Shiny
Color	Black

Preparation

RH2B 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.

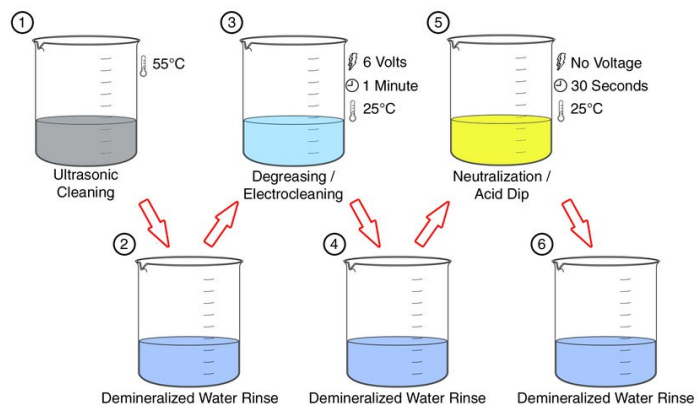
Technical data sheet and product guideline

RH2B

Black rhodium for bath plating 2 g/l ready-to-use



Pre treatment Cleansing procedure



Bath maintenance

Small-sized RH2B (until 5 liters) can be used until the rhodium solution is completely exhausted without adding any rhodium concentrate replenisher solution. For larger volumes add RH2RB 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 10-15 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.

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 subsequent replenishing operations, use demineralized water with a conductivity of less than 3 $\mu\text{S}/\text{cm}$ (containing no traces of organic compounds, Chlorine, Silicon, or Boron).

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.

Supplementary Information

Free sulfuric acid concentration has to stay close to 20 g/l.

Technical data sheet and product guideline**RH2B**

Black rhodium for bath plating 2 g/l ready-to-use

**Packaging**