RH2PB is a black rhodium for pen plating. It is great selection for doing two-tone designs or detail work such as black inlay, but most commonly used as a product to highlight black diamonds by applying to the prong area. The formulation is 100% arsenic free both in the metal deposited and in the chemical itself.

### General Information

**Product form**
- Metal concentration: 2 g (Rh)
- Product's pH: Acidic
- Solution form: Ready-to-use
- Solution form: Liquid
- Plating solution color: Black
- Storage time: 2 years
- Volume: 100 ml

**Deposit data**
- Solution appearance: Shiny
- Purity (%): 100.0
- Hardness [HV 0.01]: 800 - 900
- Density [g/cm³]: 12.4
- Plating solution color: Black
- Thickness range [µm]: 0.05 - 0.20

### Operating data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>RANGE</th>
<th>OPTIMAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>0 - 1</td>
<td>0.5</td>
</tr>
<tr>
<td>Voltage [V]</td>
<td>8 - 10</td>
<td>9.0</td>
</tr>
<tr>
<td>Working temperature [°C]</td>
<td>18 - 25</td>
<td>20</td>
</tr>
</tbody>
</table>

### Metal concentration

<table>
<thead>
<tr>
<th>Metal</th>
<th>RANGE (g/l)</th>
<th>OPTIMAL (g/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhodium</td>
<td>20</td>
<td>20.0</td>
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</tbody>
</table>

### Color coordinates

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>L*</td>
<td>59.6</td>
</tr>
<tr>
<td>a*</td>
<td>-0.4</td>
</tr>
<tr>
<td>b*</td>
<td>2.2</td>
</tr>
<tr>
<td>c*</td>
<td>2.2</td>
</tr>
</tbody>
</table>
PREPARATION

RH2PB is a ready-to-use pen plating solution at the concentration of 2g/100ml. No preparation is required.

EQUIPMENT

Power supply: Pen plating machine (5 Amp – 12 Volt rectifier)Anode: A pen with a platinum collarTips: Fiber (white or brown)

PRE TREATMENT

Work pieces designated to undergo a pen plating operation, must go through the same cleaning procedures as recommended for bath plating operations. RH2PB 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, aluminum and iron.

POST TREATMENT

Electrolyte should be removed from the surface as quick as possible. Rinse off the bath rests in a recovery rinse (still rinse). Rinse the parts in running water and dry.

BATH MAINTENANCE

Use until the rhodium solution is completely exhausted without incorporating replenishment or additives.

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 of 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.