RHODIUM ELECTROLYTE

Safety
The Tifoo Rhodium electrolyte is highly acidic, so avoid contact with acid-sensitive material. Causes skin burns and severe eye damage. Use required personal safety equipment. Wash hands thoroughly after using the rhodium electrolyte. Avoid contact with eyes, skin or clothes. Dispose of content / container in accordance with local regulations.

Champs d'application
Rhodium-plating is often used in jewellery industry to protect silver permanently from tarnishing or blackening. Being a hard and particularly corrosion-resistant precious metal, rhodium is always the choice to make when you need a high resistance.

Suitable material:
Nickel (very suitable), copper, silver, brass, etc.

Unsuitable material:
Chrome, aluminium, titanium

Using the rhodium electrolyte
The right preparation of the object is essential for good results when electroplating. So degrease and clean the object thoroughly with, e.g. Tifoo Degreaser or alternatively with spirit. Tank plating: Hang the object connected to the negative pole into a bath of Tifoo Rhodium electrolyte. Connect the positive pole then with the corresponding anode, ideally a graphite electrode. When using pen plating, dip the swab pen equipped with the graphite rod anode (connected to the positive pole) in the rhodium electrolyte for some seconds it order to soak the swab and to allow a flawless contact. You will see that there are no flaws when there is a weak current flow (visible on the ampere-screen of the power supply). When tank plating, leave the object in the solution for some minutes until the desired layer thickness is achieved.
Important specifications:

Rhodium content: 4 g/l  
**pH-value**: 1-2  
**Anode material**: platin-plated titanium or graphite; please don’t use copper or other soluble anodes!  
**Working temperature**: 20 - 30°C  
**Needed tension for pen plating**: ~ 7V  
**Needed tension for tank plating**: ~ 3V  
**Current density for tank plating**: 1 A/dm²  
**Yield**: about 100-200cm²

Image above: Example of a silver coin that has been plated with rhodium on its upper part and then left exposed to air for a while (some weeks). You'll notice how the not protected silver of the lower part becomes increasingly black (oxidation / blackening caused by silver sulphide), while the rhodium-plated layer on the upper part is not affected.
Promotion

Our company is officially sponsored by the European Union.

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