



TIFOO

PALLADIUM PLATING SOLUTION

MANUAL

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This plating solution can be seen as an alternative for the nickel plating solution. He is designed to allow private customers to create a very thin and effective barrier layer between copper and gold (or silver). For gold-plating the palladium layer, you should use our gold plating solution CHAMAELEON or MIDAS; for silverplating our silver plating solution with silver anodes). Please polish the copper layer as well as possible, if you want a shiny gold layer because the palladium plating solution does not contain gleaming agents. If absolutely necessary, you can dilute this solution 1:1 with distilled water when working with tank plating.

Safety

This plating solution has no classification a a hazardous good. Please do however work with safety gloves and glasses and keep it out of the reach of children.



Application fields

Palladium is an ideal barrier layer and above all not allergenic. A barrier layer avoids the slow discolouring of, e.g., gold layers. For when you apply gold for example directly on copper, the gold layer will turn lightly reddish because the copper diffuses and penetrates the gold. This can be avoided by palladium barrier layers or also with nickel or bronze.

Suitable material:

Copper, silver, brass, die-cast zinc and many other metals

Not that easy, but possible:

Zamak

Not suitable:

Aluminium

Using the palladium electrolyte

Before plating with palladium, the object has to be cleaned thoroughly. Then it has to be degreased - ideally with our Tifoo Degreaser or with spirit or acetone. The oxide layers on brass or copper objects should also be removed with the Tifoo Copper cleaner. Likewise, silver objects should be prepared by cleaning with the Tifoo Silver cleaner. After that, only touch the objects with gloves to avoid fingerprints.

Tank plating:

Dip the workpiece completely in the electrolyte. Use a current density of about 0.1 A / dm². This plating solution can be diluted at 1:1 with distilled water. Only increase the voltage to about 2.5 volts in order to avoid small gas bubbles.

Pen plating:

Take a small amount of the electrolyte out of its bottle to moisten the swab. Adjust a voltage of 3 to 4.5 volts and treat the workpiece with constant moving. When working with the GalvanoPEN, you should adjust about 7 volts because the deposition will be very slow.

Important specifications :

Current density (tank plating): 0.1 A/dm²

Palladium deposition (max.): 93%

Effectiveness (current yield): 100%

Deposition speed: about 1.5 µm/hour

Pen plating: about 4.5 to 7 volts

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