



TIFOO

GOLD PLATING SOLUTION - FLASH

MANUAL

GOLD PLATING SOLUTION FLASH

Safety

The electrolyte solution contains gold in the form of potassium dicyanoaurate. Please strictly avoid heating the electrolyte solution and the contact with concentrated acids. Work only in well-ventilated rooms and wear gloves when using in order to avoid skin contact. In case of acute poisoning 4-dimethylaminophenol or thiosulfate can be administered as antidotes.

Application fields

This plating solution can not be used on nickel-free steel!

The gold plating electrolyte FLASH is employed to gold plate materials which are usually difficult to plate such as stainless steels, chrome, chrome alloys or chromecoated metals. Once the surface is treated with the gold plating electrolyte FLASH a thicker coating can be achieved using other gold plating solutions (brush and tank electroplating).

For decorative purposes, the coating with the FLASH electrolyte is sufficient. The gold plating electrolyte FLASH does not work for aluminium, many aluminium alloys, titanium, normal iron (for such materials you can use the Tifoo gold plating electrolyte for brush electroplating) and in general with acid-sensitive materials.

Important Data

Gold content: 3 g / Litre

pH-value: 1

Current density: 1-2 A/dm²

Anode material: platinated titanium or graphite electrode

Working temperature: 20 - 30 °C

Needed voltage for pen plating: about 7 - 10 volts

Suited material: stainless steel, chromium and nickel

Unsuited material: copper and alloys containing copper

Using the Gold Plating Solution FLASH

The right preparation of the object is crucial for good results when electroplating. In order to gild stainless steel, polish the object on spots with larger impurities ideally with fine steel wool. Then degrease the object with the Tifoo Degreaser. As the Gold electrolyte FLASH itself is acidic (pH <1), a previous activation of the surface with acid normally isn't necessary to achieve good results. Take out the needed amount of gold electrolyte from the bottle. Then make the sponge or swab absorb the electrolyte and apply with circular movements (please wear gloves!)

Application example

Gilding a hookah

In order to demonstrate the impressive results that can be achieved with the Gold Plating Solution FLASH, we'll describe you the gilding process of metal parts of a hookah. The Gold Plating Solution FLASH however, can be applied directly on the chrome-plated parts.

Preparation of the workpiece

To prepare the hookah for the subsequent electroplating process, the entire surface was first accurately cleaned of grease residues, fingerprints and other impurities using Tifoo Degreaser.



The electroplating brush is then set up and a graphite rod electrode is inserted. Connect the brush to the positive pole of the power supply unit and connect the object to be treated to the negative pole using the crocodile clip.



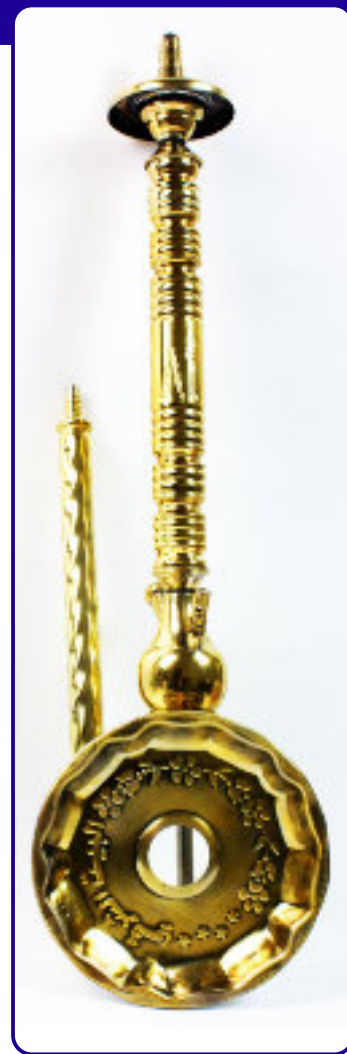
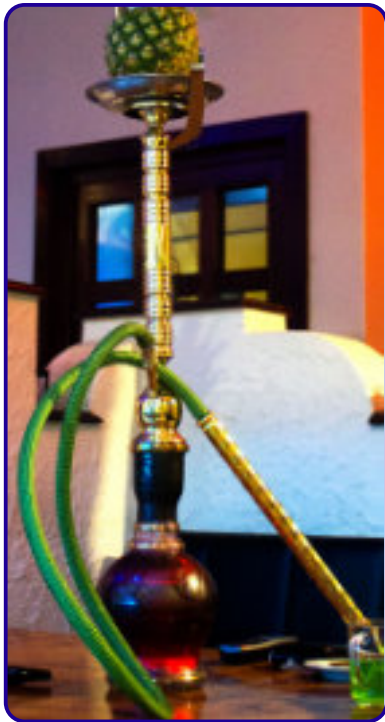
The electroplating process can now begin. To do this, moisten the pad at the tip of the electroplating brush with a little water and then immerse it in the electrolyte for 10 seconds until it is completely soaked up with the liquid. This is crucial to achieve good contact and close the circuit during application. Then apply the electrolyte using circular movements.



Make absolutely sure that you also observe a deflection of the current pointer on the power supply unit. If this is not the case, check again that everything is connected correctly and that the pad is sufficiently saturated with electrolyte. Then dip the pad into the gold electrolyte reservoir at regular intervals. After a short time, a considerable part of the surface will be completely gold-plated.



Apply a bit more of the material to the more elaborated or unshaped parts.
You can be proud of the final result!



Hints and trouble shooting

- Contact with copper or alloys containing copper (e.g.: 925 silver) destroys the gold plating solution completely. => Copper cannot be gold-plated without barrier layer (nickel or palladium).
- When used with the GalvanoPen, this plating solution deposits very slowly (better work with the Tifoo gold plating solution Midas or with the GalvanoBrush)
- During the gold-plating process, there can be differences in colour within the gold layer, but they will fade away after a longer electroplating process.
- Stainless steel with no nickel content can not be plated.
- **There may be a production-related cloudiness or precipitation within the plating solution. This does not need to be filtered and has no effect on the functionality of the gold plating solution.**

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