



TIFOO

ALKALINE COPPER ELECTROLYTE

MANUAL

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Security

For your own safety, please work always with gloves and safety glasses. Please also read carefully the indications on the labels before using the product.

Application fields

The alkaline copper electrolyte is always needed when acid-sensitive metals and surfaces are to be copper-plated, for an acidic electrolyte, like e.g. the Tifoo Bright Copper Electrolyte, would damage iron or steel. This is why it's recommended to first apply a first thin copper layer with the Tifoo Alkaline Copper Electrolyte on iron or steel before you continue with copper-plating with the Tifoo Bright Copper Electrolyte.

Suitable material for copper-plating with the Tifoo Alkaline Copper Electrolyte:

iron, steel, zinc, tin

Unsuitable material:

chrome (better with Tifoo Gold Electrolyte FLASH)

aluminium (prepare with Tifoo Activator and plate with bronze)

titanium (better with Tifoo Bronze Electrolyte)

Using the alkaline copper electrolyte

Tank plating

Pour the electrolyte into a suitable receptacle (glass, plastic) and connect the workpiece with the cathode (negative pole) of the power supply of your Tifoo Electroplating equipment. Then, connect the copper anode / the anodes (available in different sizes in our online shop) with the positive pole. The voltage for tank plating should be between 2 and 4 volts. The current flow should be of 5 to 10 mA per square centimetre. The workpiece will be covered in a copper layer in a few minutes. If this layer is a bit dark, it can be polished with steel wool.

Pen plating

For pen plating, the voltage should be between 5 and 7 volts. Use the electroplating hand equipment with a copper rod anode. Parts subjected to mechanical stress should be covered in a thicker layer in order to prevent a fast abrasion.

Hints

Please keep in mind that the alkaline copper plating solution is not designed for final layers. Thicker layers may cause spallings. This plating solution is designed to apply barrier layers on material susceptible to acids in order to protect them for later treatment with acidic plating solutions. Therefore, it is also important that the barrier layer is achieved perfectly. Even the smallest defect can cause spalling of the whole layer.

This alkaline copper plating solution is not compatible with our Tifoo Brightening agent and must not be mixed with our acidic copper plating solution or other acidic substances.

TIFOO - a brand of

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