Copper metallizing coating (01-07-00200)

Instructions

Description

TIFOO Copper metallizing coating is a high-quality, copper-based specialty coating designed for the preparation of non-conductive surfaces for electroplating.

It serves as an adhesion and base layer for subsequent electrolytic copper plating and enables the metallization of a wide variety of materials.

Using the Copper metallizing coating, a galvanic barrier layer can be created which, after acid copper plating (TIFOO TIFOO Bright copper electrolyte), can be further plated, for example, with TIFOO Palladium electrolyte, TIFOO Nickel electrolyte, TIFOO Gold electrolyte Chamaeleon/Midas or TIFOO Silver electrolyte.

Application Area

The Copper metallizing coating is suitable for:

- Preparation of non-conductive materials for electroplating
- Metallization of 3D-printed objects, glass, ceramics, plaster and many other materials
- Creation of decorative copper effects
- Model making, prototyping, restoration and technical applications

Suitable materials:

Plastics, glass, ceramics, plaster, sealed wood and other solid, non-conductive materials.

Not suitable for:

Unsealed paper or highly absorbent materials without prior treatment.

Application

1. Surface Preparation

The surface must be clean, dry, dust-free and grease-free. TIFOO Electroplating degreaser is recommended for cleaning. Absorbent materials must be sealed or primed beforehand.

2. Application

Shake thoroughly before use to ensure even distribution of the copper particles. Apply the Copper metallizing coating thinly and evenly using a brush, airbrush or spray gun.

For plastics, adhesion can be improved by using a suitable primer.

3. Drying

- Touch-dry after approx. 5 – 15 minutes
- For durable layers, allow to dry for 24 – 72 hours at room temperature

The coating layer is not abrasion-resistant. Handle coated objects with gloves only.

Important Notes

Activation of Conductivity:

The Copper metallizing coating alone does not create a permanently electrically conductive surface. To achieve full electrical conductivity, the coated workpiece must subsequently be electroplated using TIFOO Bright copper electrolyte. This step must not be carried out on acid-sensitive objects.

Only through this acid copper plating step:

- existing oxide layers are dissolved
- a continuous metallic copper layer is formed
- the object becomes fully electrically conductive
- the workpiece becomes suitable for further electroplating processes (e.g. nickel plating, gold plating, chrome plating)

Without this galvanic activation step, reliable further finishing is not possible.

General Notes:

- Apply the coating as thinly as possible to preserve fine details (20 mL is sufficient to cover up to one square meter).
- Allow to dry completely before further electroplating.
- Do not use TIFOO Gold electrolyte Flash for subsequent gold plating on copper surfaces. Use TIFOO Gold electrolyte Chamaeleon (bath plating) or Midas (brush/pen plating) instead.
- Close the container immediately after use.
- Not suitable for surfaces exposed to heavy mechanical stress.

Disposal

Do not allow product residues to enter drains or waterways. Liquid residues and contaminated materials must be disposed of as hazardous waste in accordance with local regulations.

Safety Instructions

DANGER! Flammable liquid and vapour. Harmful if swallowed or if inhaled. Causes serious eye irritation. May cause drowsiness or dizziness. Very toxic to aquatic life with long lasting effects. If medical advice is needed, have product container or label at hand. Keep out of reach of children. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid release to the environment. In case of fire: Use CO_2 or dry powder to extinguish. Collect spillage. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents/container in accordance with local/regional/national regulations. Repeated exposure may cause skin dryness or cracking. Contains: Copper powder (modified with aliphatic acid), n-Butyl acetate, Acetone.