

DuPont CB500

removable conductive silver plating link for printed circuit boards

Processing Guide

Product Description

DuPont CB500 removable conductive silver plating link was developed for electroplating applications for the Printed Circuit Board (PCB) market. This product eliminates the need for bus bars or other copper connections and removes the need for "after plating," ultimately reducing process cost. This composition was designed to be applied using standard screen printing equipment and designed to be removed easily after plating.

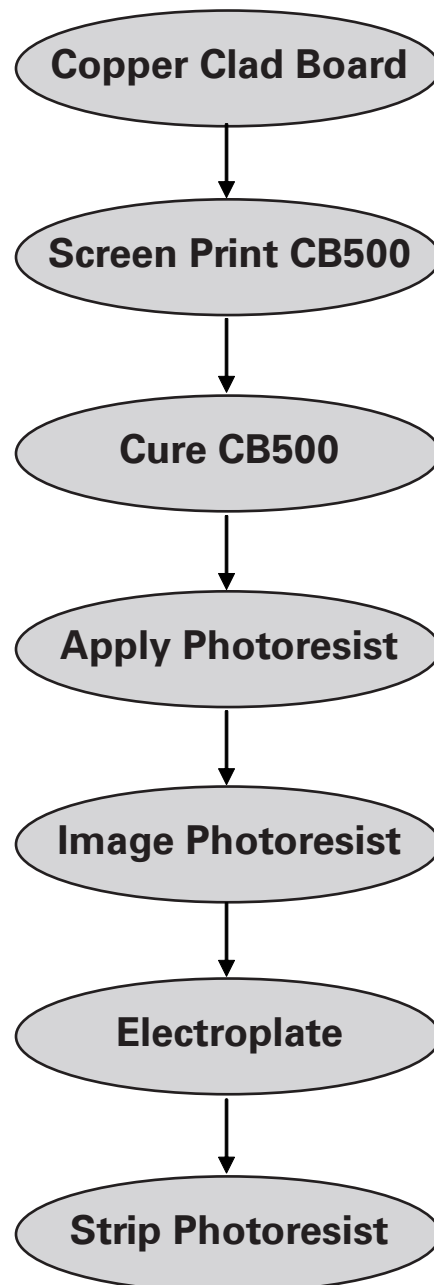
Product Benefits

- Reduces cost and process steps for selective electroplating applications
- No residual ink on board after strip (avoid stud bump antenna effect)
- Low temperature processing
- Low resistance
- Can be used in a wide variety of applications on various substrates (epoxy glass, Kapton®, ceramic and other flexible and rigid substrates)

Technical Data

See Technical Data Sheet for environmental and physical properties.

Process Recommendations

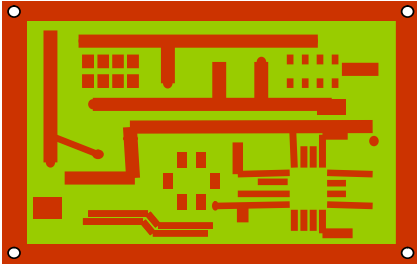


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Process Steps

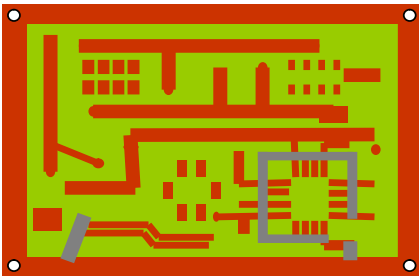
This document reflects standard processes, including those commonly used for typical screen printing of electronic inks. Processes may vary by application. Please contact us for specific processing recommendations.

1. Clean copper



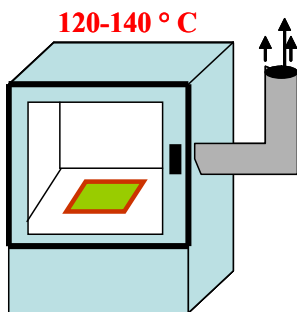
- The copper surface should be prepared as needed for good dry film adhesion. Once the CB500 removable conductive silver plating link is applied, the panel cannot be scrubbed or chemically cleaned.

2. Screen CB500



- The paste can be applied using a 325 mesh stainless steel screen with 12.5 μm (0.5 mil) emulsion to achieve a cured thickness of 25 μm ($\pm 2 \mu\text{m}$). Other screen meshes and/or polyester screens can be used but may yield a different conductor thickness.

3. Cure Paste



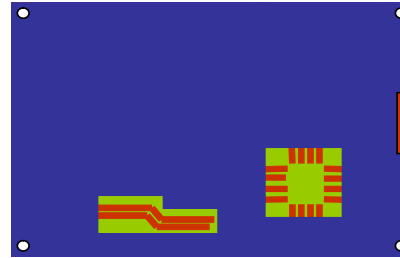
- Allow the wet print to level for 5–10 minutes at room temperature prior to drying. Dry for 10 minutes at 120–140°C in a well ventilated box oven or conveyor dryer where the exhaust meets environmental regulations. Higher curing temperatures may result in difficulties stripping the CB500.

4. Apply Photoresist



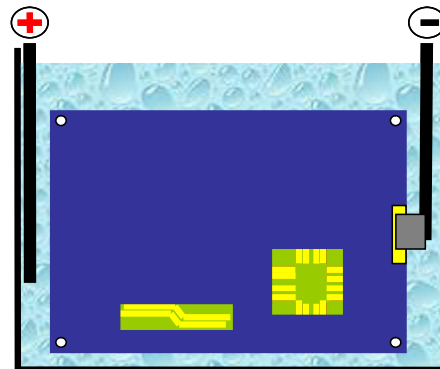
- Follow vendor recommended process

5. Image Photoresist



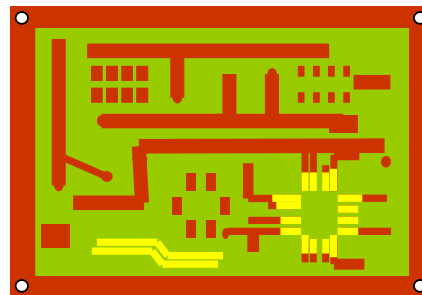
- Use vendor recommended exposure and developing. Ensure image keeps the CB500 completely covered.

6. Electroplate



- Exposed copper surface can be plated.

7. Strip Photoresist



- This step will remove both the photoresist and CB500.
- Strip photoresist using vendor's recommended process. Otherwise, CB500 can be removed in a basic solution $\text{pH} > 10$ (Na_2CO_3).

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