

무전해 주석도금시의 문제점과 그 대책에 대한 연구

( Study on tin immersion plating on printed circuit boards)

발표자:김동필(소프트전자대표)  
참여자:염희택(한국표면처리연구소장)

**Abstract**

Two companies plating baths were selected for plating on phenol and epoxy resin boards as well as on flexible polyimide boards. After plating, deposited thickness and physical properties, as well as solder wettabilities by aging with 150℃ heating and 100% humidity were compared.

After plating and aged with two different tin baths, deposited thickness and physical properties were not so great differences, but solder wettabilities were superior used polymer catalyst than the other.

Furthermore depend upon the compactness and fineness of metallic structures of the base copper, the amounts of the plated copper were big differences.

These differences seems to be inherited from the kind and amount of additives, as well as current densities, which are influences upon structures of copper layers.

Generally the tin thickness are between 0.5 to 1.0 $\mu\text{m}$  and thicker the solder wettabilities are the better, and also the compact structures of deposits showed good solderabilities.

In this study, with our own developed plating equipment could get more than 0.5 $\mu\text{m}$  of tin thickness and plating speed was 0.1 $\mu\text{m}$  per minutes.