

## 酸性주석鍍金浴중에서의 C-Dip package 上의 Tin-bridge 形成機構와 그의 抑制法 (II)

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Mechanism of Tin-bridge formation on C-Dip packages in acid  
tin bath, and its inhibition technique

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### 요 약

酸性光澤 주석 鍍金시 C-Dip package 에 사용된 PbO-ZnO-B<sub>2</sub>O<sub>3</sub> 系 solder glass 表面上的 Tin-bridge 形成機構를 說明코져 하였다. 豫備處理用 酸溶液에 의해서 形成된 solder glass 表面의 反應生成物이 陰極還元을 하므로서 Tin-bridge 가 形成함을 알았으며 '또한 이 Tin-bridge 를 形成할 수 있는 鍍金浴 條件을 변경시키므로서 Tin-bridge 形成의 內容을 說明할수 있다. solder glass 의 特性을 검토하므로서 과산화수소 용액에 의한 Tin-bridge 形成을 抑制할 수 있다.

### ABSTRACT

We investigate the mechanism of a tin-bridge formation on the solder glass surface during acid bright tin plating of a C-Dip package. In the PbO-ZnO-B<sub>2</sub>O<sub>3</sub> system under study, the formation is found to be primarily due to the cathodic reduction the glass surface. And these sulfates, mainly PbSO<sub>4</sub>, are shown to be the products of a precleaning with acids. The bath conditions are varied to see their effect on the tinbridge formation. We find that the formation can be avoided by pretreating the glass surface with oxyful. Possible mechanisms for this are discussed.

## 알루미늄의 섬유상부식 Filiform Corrosion of Aluminum

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### Abstract

Experimental results on filiform corrosion of aluminum were reviewed with emphasis on the morphology of the corrosion. Development of the corrosion was explained based on the fracture characteristics of oxide films and anisotropic stress distribution of organic coating. The fact that filiform filaments never cross each other has been also discussed.