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各種鉛フリーはんだの銅およびステンレス鋼に対する溶食性の比較
Comparison of Erosion by Soldering to Cu and Stainless Steels in Various Kinds of
LeadfreeSolder

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Abstract

To protect environment, it is very important to change solder for electrical equipment from lead type to leadfree type.

Although mass-production of leadfree solders has begun, it becomes a very important problem in the market that copper wires of circuit boards and walls of stainless steel's soldering bath are dissolved by erosion during soldering. In this study, effects of two different leadfree solders, i.e. Sn-Ag-Cu and Sn-Cu-Ni solders on dissolution of copper and stainless steel by corrosion and erosion are investigated. Dissolution rate of copper and stainless steel by Pbfree solder was greater than that of SnPb eutectic solder. Dissolution rate of copper and stainless steel during Sn-Cu soldering decreased by Ni addition to the Sn-Cu solder.

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