

## ABSTRACT

Electrically conductive adhesives (ECA) containing Cu-P and Cu as metallic filler, respectively, were studied in term of electrical properties and thermal stability. Both metallic fillers used in this study were prepared by using gas atomization method. The electrical property of the Cu-P filled ECA was investigated for long-term stability and reliability by aging at high temperature exposure at 125°C for 1000 h. Results showed that the Cu-P filled ECA remained consistently low electrical resistivity after 1000 h aging at 125°C, compared to that of the Cu filled ECA where the electrical resistivity increased rapidly over time.

**Keywords:** conductive adhesive, copper, aging, electrical properties