

## **Zn-Sn based high temperature solder - A short review**

### **Abstract**

The developments of lead-free solders have become a major concern to the researchers in electronic industry to replace the lead-containing materials. The concern is not just for low temperature solders but also for high temperature solders. The lead and lead-based compound are highly toxic which is dangerous to human health and environment. The highly suitable lead-free solder candidates for replacing high Pb high temperature solder are Au-Sn, Al-Zn, Zn-Sn, Sn-Sb, and Bi-Ag solders. However, Zn-Sn based solder has highly recommended as the best candidates in replacing high lead high temperature solder. This paper provides a short review of recent research on Zn-Sn based lead free high temperature solders with different additional alloying elements. The new novel alloy of Zn-Sn based for high temperature solder applications will be proposed in this paper.

**Keywords** —High temperature solders, lead-free solder, Zn-Sn.