MITSUBISHI MATERIALS

Heat-resistant / Enhanced heat-resistant 3-layer plating

1. Features

☐ Available for high temperature condition (Plating before stamping)

☐ Superior electrical connection reliability, because Tin (Sn) layer remains for a long time under high temperature condition.

☐ Lower cost than precious metal plating

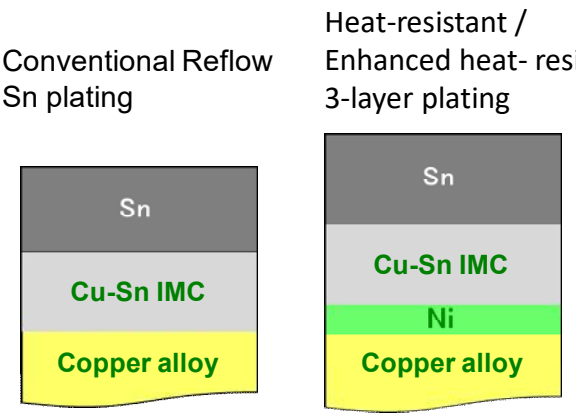
2. Application examples

☐ Terminals with high voltage in electric vehicle, Terminals and Bus bars required heat resistance under high temperature conditions, such as Engine compartment

3. Structure of plating

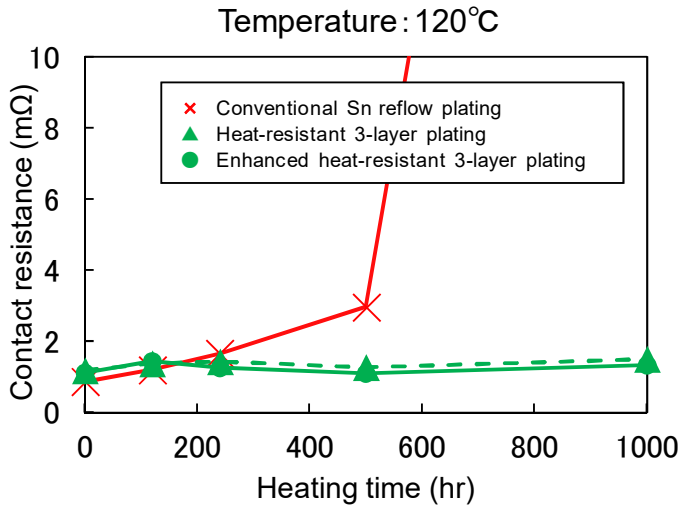
☐ Nickel layer suppresses the excessive growth of Cu-Sn intermetallic compound (IMC) and improves heat resistance.

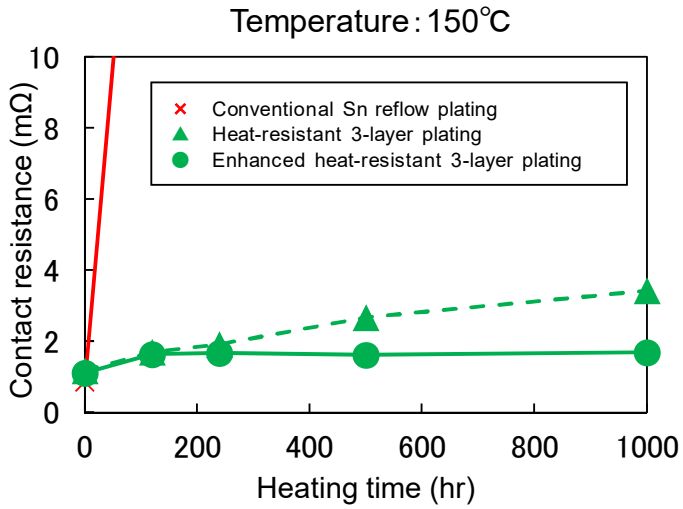
☐ Two level of heat resistance depending on different thickness of Sn layer.



Cross section of plating

4. Contact resistance





☐ Applicable temperature for Heat-resistant / Enhanced heat-resistant 3-layer plating

- Heat-resistant 3-layer plating : Up to 120℃
- Enhanced heat-resistant 3-layer plating : Up to 150℃

MITSUBISHI MATERIALS
URL: http://www.mitsubishi-copper.com/en/
Date:01/04/2020

Sales Div.,Copper & Copper Alloy Business Unit, Advanced Products Company
Address: 3-4-1 Marunouchi, Chiyoda-ku, TOKYO 100-0005
Email: mb-copper@mmc.co.jp