



SCIENTIFIC ALLOYS

SPHERES IN MOTION

Technical Data Sheet

Copper Core Sphere

Electroplating Physical Properties:

Alloy: Pure Sn

Melting Point/Range: 232°C Eutectic

Tensile Strength: 1.92 Ksi

Specific Gravity: 7.29 g/cm³

Thermal Conductivity: 73 Wm⁻¹ K⁻¹

Hardness: 4 HB

Electrical Resistivity: 1.24 microhm-cm

Alloy: Sn60 Pb40

Melting Point/Range: 183-191 L°C

Tensile Strength: 7.60 Ksi

Specific Gravity: 8.50 g/cm³

Thermal Conductivity: 49 Wm⁻¹ K⁻¹

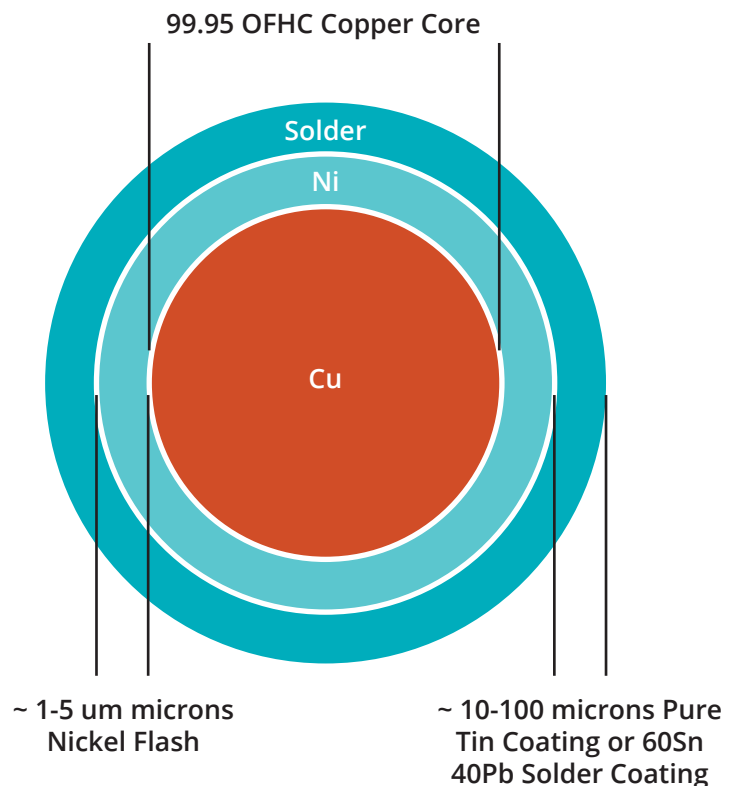
Elongation: 40%

Hardness: 16 HB

Electrical Resistivity: 1.53 microhm-cm

Application:

Electroplated pure copper core spheres are used in BGA, and PGA packages to create an automatic standoff within a highly thermally conductive and low electrically resistant jointed connection. The spheres are plated with 1-5 microns of nickel to help keep the plated metals and copper core separate.



Disclaimer:

This is for informational purposes only and assuming proper handling and operation is deemed accurate based on current data.