

# LINQALLOY CC-SAC305



## Copper Core Solder Spheres

- Alloy Composition: Sn(96.5%)Ag(3%)Cu(0.5%)
- Solidus temperature: 217°C
- Liquidus temperature: 219°C

**LINQALLOY CC-SAC305** solder Spheres are lead-free Tin/Silver/Copper alloys that contain 96.5% Tin (Sn), 3% Silver (Ag), and 0.5% Copper (Cu), often written as Sn96.5Ag3.0Cu0.5. These are not the normal SAC305 spheres since they have a copper core that enables “no tilt” design and can act as a spacer for applications that require perfect BLT control.

The size of the core depends on the diameter of the sphere. The alloy itself has excellent fatigue resistance and it is compatible with all flux types. It exhibits excellent joint reliability and it is the best wetting Sn/Ag/Cu alloy.

### Alloy composition

Element	Sn	Ag	Cu
(% wt)	96.5	3	0.5

### Properties

Property	Value	Unit
Solidus temperature	217	°C
Liquidus temperature	219	°C
Density	7.4	g/cm <sup>3</sup>
Tensile Strength	51.5	MPa
Young's Modulus	48	GPa
Elongation	37	%
Electrical resistivity	13.1	μΩ.cm
Thermal conductivity	71.8	W/mK
CTE	23.8	ppm/°C

### Reflow profile

Peak reflow temperature is 245-250°C.

Please refer to the supplier temperature tolerances of your components and circuit boards.

Please adjust the reflow profile to your process and application parameters.

### Storage and Handling

Shelf life of the sealed ESD container at 25°C is 12 months. Ideal humidity is <60%RH.

Touching the spheres can lead to contamination and distortion of their shape and surface due to applied pressure and skin oils. Please handle with care.

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