



# TECHNICAL DATA SHEET

CATEGORY:  
NAME:

**LEAD-FREE ALLOY**  
**SAC305 (Sn/Ag3.0/Cu0.5)**

## FEATURES

- LOWEST COST SN-AG-CU ALLOY
- BEST WETTING SN-AG-CU ALLOY
- EXCELLENT SOLDER JOINT RELIABILITY
- LOW MELTING POINT FOR A PB-FREE ALLOY (217°C -218°C)
- COMPATIBLE WITH ALL FLUX TYPES
- EXCELLENT FATIGUE RESISTANCE

## DESCRIPTION

SAC305 is a lead-free alloy that contains 96.5 % tin, 3% silver, and 0.5% copper. This alloy falls under the JEIDA recommendation for lead-free soldering. SAC305 is a near drop-in replacement for 63Sn/37Pb for wave soldering and hand soldering applications and has proven to perform very well in SMT applications. When used in wave soldering, SAC305 produces less dross than other solder alloys, wets well, and provides superior joint strength. SAC305 may be used with existing equipment, processes, coatings, and flux chemistries. The SAC305 alloy is available in bar, cored wire, solid wire, foil, preforms, powder, and no-clean, water soluble and rosin solder pastes. SAC305 no-clean solder pastes pass all Bellcore and IPC specifications.

### IMPURITY LEVELS TO IPC-JSTD-006 in Percent

Al: 0.005	Au: 0.05	Cd: 0.002	Fe: 0.02	In: 0.10
As: 0.03	Bi: 0.10	Zn: 0.003	Ni: 0.01	

## HANDLING

Refer to the specific Material Safety Data Sheet and the handling section of the individual Technical Data Sheets for the chemistry type of SAC305 solder paste being used.

## FLUX COMPATIBILITY

SAC305 is compatible with all major electronic grade fluxes on the market today, and is available in paste and wire form in no-clean, water soluble and rosin chemistries.

## CLEANING

Refer to the liquid flux manufacturer's data sheet for specific cleaning information, or refer to the cleaning section of the individual AIM solder paste technical data sheets for the recommended cleaning information.

## TEMPERATURE REQUIREMENTS

APPLICATION	RECOMMENDED TEMPERATURE
REFLOW SOLDERING	PEAK TEMPERATURE 235° - 245°C (455° - 473°F)
WAVE SOLDERING	POT TEMPERATURE OF 260°C (500°F)
HAND SOLDERING	TIP TEMPERATURE OF 370° - 425°C (700° - 800°F)

## SAFETY

- Use with adequate ventilation and proper personal protective equipment.
- Refer to the accompanying **Material Safety Data Sheet** for any specific emergency information.
- Do not dispose of any hazardous materials in non-approved containers.

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