



# **ELECTRONIC SOLDERS**

## **TECHNICAL DATA SHEET**

### **LEAD-FREE SAC ALLOYS SAC305, SAC387, SAC405, SAC0307**

#### **DESCRIPTION**

SAC Alloys are the leading alloys replacing tin-lead solders for electronic assembly applications. These alloys have proven to perform well in surface mount, wave soldering, and hand soldering applications. SAC Alloys may be used with existing equipment, processes, coatings, and flux chemistries. SAC Alloys are available in bar, cored wire, solid wire, foil, preforms, powder, and no-clean, water soluble and RMA solder pastes.

SAC ALLOYS	TIN	SILVER	COPPER
SAC305	96.50%	3.00%	0.50%
SAC387	95.50%	3.80%	0.70%
SAC405	95.50%	4.00%	0.50%
SAC0307	99.00%	0.30%	0.70%

#### **FEATURES**

- Excellent resistance
- Excellent solder joint reliability
- Low melting point for a PB-Free alloy (217°-218°C)
- Compatible with most flux type

#### **TYPICAL IMPURITY LEVELS IN PERCENT**

Al: <0.001	Au: <0.001	Cd: <0.001	Fe: 0.01	In: <0.005
As: <0.01	Bi: 0.01	Zn: <0.001	Ni: <0.003	Pb: <0.03

#### **FLUX COMPATIBILITY**

SAC Alloys are compatible with most major electronic grade fluxes on the market today.

## **TEMPERATURE REQUIREMENTS**

APPLICATION	RECOMMENDED TEMPERATURE
REFLOW SOLDERING	PEAK TEMPERATURE 235°-245°C (455°-473° F)
WAVE SOLDERING	POT TEMPERATURE OF 265°-270°C (520°-530°F)
HAND SOLDERING	TIP TEMPERATURE OF 370°-425°C (700°-800°F)

## **STORAGE & SHELF-LIFE**

When stored properly these alloys have no limited shelf-life. Surface oxidation is cosmetic and will not impede product performance.

## **SAFETY**

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

## **AVAILABILITY**

SAC Alloys are available in bar, solid and cored wire, foil, spheres, preforms, powder, ingot, and anode form.

Core wire fluxes include no clean, water soluble and rosin fluxes in diameters from .006 to .125 and flux percentages from 0.5% to 3.6%.

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