



Solder Preforms | Engineered Solder Materials

TECHNICAL DATA SHEET Sac305 (Lead Free) (96.5sn/3ag/.5cu)

Category: Lead Free Solder

Name: Sac305

FEATURES

- Melting Point 220°C (428°F)
- Compatible with all Flux Types
- Excellent Wetting Speed
- Excellent Solderability and Spreading
- Reduced Bridging Versus Sn-Cu Alloys
- Adheres to IPC J-STD-006

DESCRIPTION

Array Solders alloys are manufactured with virgin metals which meet the high standards. The purity level exceeds the industry requirements for allowable impurity levels which helps control dross levels.

Sac305 lead-free alloy contains 96.5 % tin, 3% silver, and 0.5% copper and is RoHS, REACH and JEIDA compliant. Applications include Wave, Selective, Hand and SMT Reflow Soldering. Sac305 offers reduced dross production and superior wetting and fluidity as compared to other solder. Array Solders Sac305 is alloyed using our proprietary method resulting in a low dross, high wetting solder. Sac305 can be used with all existing lead-free compatible equipment, processes, coatings, and flux chemistries.

APPLICATIONS

Sac305 is designed for use as a Pb-free substitute for tin/lead alloys in most electronic assembly soldering applications.

AVAILABILITY

This alloy is available in preforms, bar, solid and cored wire, foil, spheres, powder, ingot and paste.

TYPICAL ANALYSIS

Principal Elements

Tin (sn) 96.2-96.8%	Silver (ag) 2.8-3.2%	Copper (cu) 0.4-0.6%
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Maximum Impurity Levels

Lead (pb) <0.05%	Antimony (sb) <0.05%	Bismuth (bi) <0.05%	Indium (in) <0.05%
Copper (cu) <0.01%	Gold (au) <0.01%	Arsenic (as) <0.005%	Iron (fe) <0.002%
Nickel (ni) <0.001%	Aluminum (al) <0.001%	Zinc (zn) <.001%	



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Properties

Alloy	96.5sn/3ag/.5cu (Sac305)
Melting Point	221° C/430 ° F
Density	7.49g/cm3
Tensile Strength	29.7n/mm2
Elongation	27%
Coefficient of Thermal Expansion	23.5 ppm/ ° C
Hardness	15 HB

Handling

Indefinite shelf life applies to solid solder. Can be stored at room temperature

DISCLAIMER

The information contained herein is based on data considered accurate and is offered solely for information, consideration and investigation. For further information, please refer to the applicable MSDS. Array Solders extends no warranties, makes no representations and assumes no responsibility as to the accuracy, completeness or suitability of this data for any purchaser's use. The data on this document relates only to this product and does not relate to use with any other material or in any process. All chemical products should be used only by, or under the direction of, technically qualified personnel who are aware of the hazards involved and necessity for reasonable care in handling. Hazard communication regulations require that employees must be trained on how to use a Material Safety Data Sheet as a source for hazard information.