

ALPHA® Sn99Cu1 Solder Alloy

LEAD FREE WAVE SOLDER AND REWORK ALLOY

DESCRIPTION

ALPHA Sn99Cu1 is No-silver lead-free alloy suitable for use as a replacement for SnPb, SAC305 and other low silver SAC alloys in wave solder, selective soldering, lead tinning and rework processes. As with all Alpha Metals bar solder, Alpha's proprietary Vaculoy™ manufacturing process is used to remove certain impurities, particularly oxides.

FEATURES & BENEFITS

Features:

- YIELD – Excellent production yields. Outperforms Sn99.3Cu0.7 based materials.
- WETTING SPEED AND FORCE - Fast wetting with high force.
- DROSS GENERATION – Low dross rate due to the Vaculoy manufacturing process.
- SOLDER FILLET SURFACE – Smooth and bright with no surface crack.

Benefits:

- Lowers Total Cost of Ownership due to the lower material cost, high yields and low dross generation.
- Provides very good solderability due to the fast wetting speed.
- Delivers good performance across different soldering processes.

The proprietary Vaculoy process is a highly effective method for removing included oxides from solder. This is extremely important because included oxides generate excessive drossing and increase the viscosity of the solder. Solder with higher viscosity can result in increased soldering defects (i.e solder bridging).

APPLICATION

Sn99Cu1 is suitable for wave soldering, selective soldering, lead tinning and reworking both through hole and surface mount components in a lead-free process. It is suited to single side and relatively simple, dual sided mixed technology boards. A solder pot temperature of 260 - 275° C (491 – 518 F) is recommended. For suitable wave solder fluxes, please see our selector guide. Lead free Reclaim services including dedicated lead free containers is also available, please consult your local sales office.

TECHNICAL DATA

Complies with all requirements of RoHS Directive (Article 4.1 of the European Directive 2011/65/EU). Alloy specification for Maximum Lead (Pb) Content = **0.05%**

Material Property	Units	Sn99Cu1
Liquidus	Celsius	~227

SAFETY

Please refer to MSDS for advice on proper handling and safety instructions.

STORAGE

Store the solder bar in a cool, dry and non-corrosive environment. Wrap up the solder bar when not in use to reduce exposure to environment

AVAILABILITY

Sn99Cu1 is available in Bar, Ingots and Solid Wire.

2015-07-22

an Alent plc Company

ALPHA Global Headquarters
300 Atrium Drive, Somerset, NJ 08873 USA • 1-800-367-5460 • www.alpha.alent.com

The information contained herein is based on data considered accurate and is offered at no charge. No warranty is expressed or implied regarding the accuracy of this data. Liability is expressly disclaimed for any loss or injury arising out of the use of this information or the use of any materials designated.

ALPHA is a registered trademark of Alpha Metals, Inc.

© 2014 ALPHA