Heraeus

Technical Data Sheet



ASSEMBLY MATERIALS

Product Type: No Clean Solder Paste

Product Name: SOP 91123 SAC305-89M4

Description

SOP 91123 SAC305-89M4 solder paste is a lead free, no clean solder paste that promotes outstanding wetting and minimizes soldering defects. The flux system is specifically optimized for lead free solder alloys. This formula provides superior performance on a variety of surfaces finishes and leaves a clear residue after reflow. It is developed for J-STD-004 LO classification and contains no halogens or halides.

Key Benefits

- Halogen Zero
- Good wetting under Air and Nitrogen atmosphere
- Anti-Capillary effect beneath QFP & passive components

Applications

Printing

Product Code and Alloy

Product Code				Powder Properties			
Paste	Alloy	Metal Content	*Viscosity	Powder Type	Particle Size	Alloy	Melting Point
SOP 91123	Sn/Ag3/Cu0.5	89.25%	М	4	20 – 38 μm	Sn96.5/Ag3/Cu0.5	217 °C

^{*}D = Dispense grade M = Print grade H = Print grade, high L = Dipping/Jetting grade, Low

Flux Activity		
Activity Level (J-STD 004)	ISO 9454-1 {DIN EN 29454-1}	Classification
RELO	1.2.3.C	No Clean/ Solvent Clean

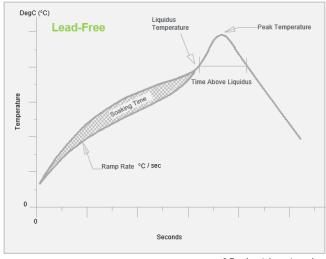
Halogen Content Halogen-Zero (No halogen added in the flux)

Tolerances: Halogen < 50 ppm; measured according to BS EN 14582



Technical Data Sheet

Recommended Reflow Profile



*	Granh	not	drawn	to	sca	le

Recommended Profile			
Average Ramp Rate	1 – 3 °C/s		
	15 °C (min) –		
Peak Temperature	40 °C (max)		
	above Melting		
	Temperature		
Time above liquidus	45 – 90 s		
	Reflow in Air		
Reflow Atmosphere	or in N ₂ with		
Type 3 – 5	< 2000 ppm 0 ₂		

The descriptions and engineering data shown here have been compiled by Heraeus using commonly-accepted procedures, in conjunction with modern testing equipment, and have been compiled as according to the latest factual knowledge in our possession. The information was up-to date on the date this document was printed (latest versions can always be supplied upon request). Although the data is considered accurate, we cannot guarantee accuracy, the results obtained from its use, or any patent infringement resulting from its use (unless this is contractually and explicitly agreed in writing, in advance). The data is supplied on the condition that the user shall conduct tests to determine materials suitability for a particular application)

Cleaning Instructions

After reflow flux residues may remain on the circuit and do not need to be washed. For cleaning of wet paste or if desired for cleaning of flux residues Zestron and Vigon cleaners can be used – see separate cleaning recommendations.

Storage

- Store the solder paste in tightly-sealed containers and avoid exposure to sunlight and high humidity
- Max expiration date: please refer to the expiry date on the label of the packaged product
- Storage condition in the refrigerator at 2 -10 °C
- Store cartridges with tip pointing downwards

Paste Preparation

- Remove paste from fridge: Before opening the package, leave paste for at least 4 hours (depending on jar/ cartridge size) at room temperature, so that paste warms up
- Do not open jar/cartridge while paste is cold to prevent condensation
- Do not heat the paste beyond room temperature
- Before using paste jar: To obtain uniform, stable viscosity stir paste for 1 – 2 min, using stainless steel or chemically resistive plastic spatula

Heraeus Electronics

Heraeus Deutschland GmbH & Co. KG Heraeusstraße 12 – 14 63450 Hanau, Germany www.heraeus-electronics.com

Americas

Phone +1 610 825 6050 electronics.americas@heraeus.com

Asia Pacific

Phone +65 6571 7677 electronics.apac@heraeus.com

China

Phone +86 21 3357 5457 electronics.china@heraeus.com

Europe, Middle East and Africa

Phone +49 6181 35 3069, +49 6181 35 3627 electronics.emea@heraeus.com