Heraeus

Technical Data Sheet



ASSEMBLY MATERIALS

Product Type: No Clean Solder Paste

Product Name: F823 SA40C5-89M30

Description

F823 SA40C5-89M30 solder paste is a ready-to-use, homogeneous mixture with low odour characteristics, consisting of metal powder, binders, solvents, fluxes and thixotropic agents. The material provides a very high Surface insulation resistance of the flux residues. The solder paste is especially optimised to solder Tin-Silver-, Thin-Silver-Copper and Low-melting-alloys.

Key Benefits

- Especially suitable for Reflow in convection and vacuum ovens.
- Exceptional print to print consistency
- Min. 8 hours tack and work life

Compliant Products

- Flux TF 823

Applications

- Printing

Product Code and Alloy

Product Code					Powder Properties		
Paste	Alloy	Metal Content	*Viscosity	Powder Type	Particle Size	Alloy	Melting Point
F823	SA40C5	89%	M	3	25 – 45 µm	Sn95.5/Ag4/Cu0.5	217 °C

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

Flux Activity

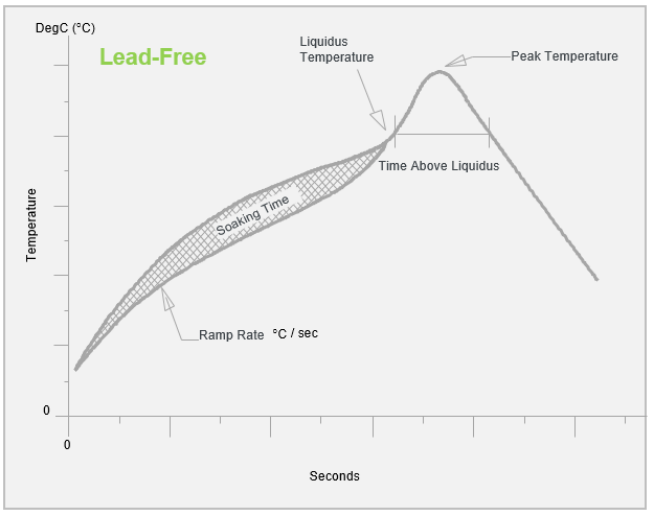
Activity Level (J-STD 004)	ISO 9454-1 {DIN EN 29454-1}	Classification
REL0	1.2.3.C	No Clean/ Solvent Clean/

Halogen Content

Halogen-Zero (No halogen added in the flux)
Tolerances: Halogen < 50 ppm; measured according to BS EN 14582

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Recommended Reflow Profile



* Graph not drawn to scale

Recommended Profile	
Average Ramp Rate	**1 – 3 °C/s**
Peak Temperature	**15 °C (min) – 40 °C (max) above Melting Temperature**
Time above liquidus	**60 – 120 s**
Reflow Atmosphere	**Reflow in N_2 and/or Vacuum**

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

For cleaning of wet paste or if desired for cleaning of flux residues Zestron and Vigon cleaners can be used. Flux residues have to be removed within max, 4 hours after reflow by spraying deionized water of min. 50 °C. For alternative cleaning methods– 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 of paste jar: To obtain uniform, stable viscosity stir paste for 1 to 2 min, using a 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

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

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

Europe, Middle East and Africa
Phone +49 6181 35 3069, +49 6181 35 3627
electronics.emea@heraeus.com

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