

## 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<br>(J-STD 004) | ISO 9454-1<br>{DIN EN 29454-1} | Classification              |
|-------------------------------|--------------------------------|-----------------------------|
| RELO                          | 1.2.3.C                        | No Clean/<br>Solvent Clean/ |

#### Halogen Content

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

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### Recommended Reflow Profile



| 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 <sub>2</sub> and/or Vacuum              |

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### 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

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