



## SOLDER PASTE SC BLF083

Type ISO 1.2.3.C

The solder paste **SOLDER CHEMISTRY BLF083** is an enhancement development of well-trying BLF082 regarding to the customer requests and their desirable properties of SMT pastes also desire of their wishes for an easy printable and prolonged tackiness of the paste, to be able to bridge the rest period between printing and assembly, which can be up to several days. At the same time our „trade mark“ i.e. minimal residues on the PCB, which stay close to the solder joint after soldering, were to be retained.

**Especially excellent it meets in voids free solder joints and smallest residues very friendly for AOI systems. Also superior wetting results e.g. by BGAs, QFNs or LGAs.**

**Of course since over 20 years known exclusive by all SC solder pastes it does not require the refrigeration!** The use of the newest types of modified plastics and rheological additives in the solder paste and thus the resulting very good possibility to combine it with lead free alloys, as well as the latest discoveries and experience with lead free soldering have contributed to this development. Of course the careful and severe consideration of the norms DIN, EN, IPC and MIL are part of this product, too.

Besides the usual advantages like an outstanding slump, no making of solder balls or splashes, as well as a high temperature stability, along with a long term processing time and long standing time, these advantages distinguish this paste:

- \* **BLF083\*** **Excellent resistance against humidity. Stickiness for days!!!**
- \* **BLF083\*** **Forms very homogenous and voids free solder joints!**
- \* **BLF083\*** **Solders without problems, even on slightly corroded surfaces. (QFNs LGAs!)**
- \* **BLF083\*** **Residues are absolutely halide free. (correspond to the RE L0 classification!)**
- \* **BLF083\*** **An outstanding printing quality, for hours, as already known!**
- \* **BLF083\*** **Does, of course, not leave any tar residues in your reflow system.**
- \* **BLF083\*** **Minimum, nearly invisible residues, as well as nearly no solder balling!**
- \* **BLF083\*** **Mini residues with only 4.9% value easy washable by all known cleaner.**

### PHYSICAL DATA

| Preferred alloys            | Melting point | According to international standards we deliver these alloys in the classes of: |
|-----------------------------|---------------|---|
| <b>Sn99.3/Cu0,7</b>         | <b>224°C</b>  |   |
| Sn95.5/Ag3.8/Cu0.7          | 219°C         | class 3 25 - 45 µm  |
| Sn96.9/Ag2.6/Cu0.5          | 217-221°C     | class 4 20 - 38 µm  |
| <b>Sn96.5/Ag3/Cu0.5</b>     | 217-219°C     | class 5 10 - 25 µm  |
| Sn99.0/Ag0.3/Cu0.7          | 221°C         |   |
| <b>Sn90/Ag3,5/In6/Bi0,5</b> | 202-210°C     |   |

### VISCOSITY (Pa.S)

| <u>Viscosity:</u> * |                  | Slump according to DIN32513 |            | Solder balling acc. to IPC | Wetting acc. to IPC |
|---------------------|------------------|-----------------------------|------------|----------------------------|---------------------|
|                     |                  | Immediately                 | 20min 80°C |                            |                     |
| 900 Pas             | powder class III | class 1 = 0.2               | 0.2        | 1                          | 1                   |
| 950 Pas             | powder class IV  | class 2 = 0.2               | 0.3        |                            |                     |

\*The information is founded on the measurement with the Brookfield RVT-DV-II viscometer TF 5R/pm at 25°C with the Helipath-system (+/- 10%). Paste with 90% metal content.

**SURFACE RESISTANCE (SIR)** and electrolytic corrosion impact according to DIN 32513

|             |                      |                      |
|-------------|----------------------|----------------------|
| Measured on | day 4                | day 21               |
|             | $2.8 \times 10^{11}$ | $5.1 \times 10^{11}$ |

## QUALIFICATIONS

The solder paste BLF083 is an RMA-paste that accords to the requirements of the MILQQ-S571e. The corrosion-, solder ball- and the wetting test as well as the slump (according to DIN 32513) were passed. Laboratory research confirmed corrosion free residues, corresponding to the RE L0, which can remain on the board.

## HANDLING

After taking out the paste, close the container tightly. Used paste should not be stored with fresh paste together. In the running working process it is of course allowed to mix in fresh paste to freshen up the old one. Different alloys and types of paste shall not be mixed.

Recommended squeegee speed: 15 – 100 mm/s.

Remember! The printer is always faster than the fastest assembler in the line. The most important is that the paste rolls in front of the squeegee.

For stencil printing a paste with 88% metal content is recommended.

The cleaning of the stencil can be done with an alcoholic mixture, but the cleaning medium shall under no circumstances get in contact with the paste. **We recommend thus the SC Stencil Cleaner.** The solder paste is applicable with all common reflow systems.

## STORAGE

Unopened (cans!) at room temperature (prevailing at workplace): 6 months

Opened or at the squeegee of the printing device the maximum working time is dependant of the environmental influences to which the paste is exposed, in practice several weeks.

**A storage in the refrigerator is not necessary!**

This is how you order your Solder Chemistry paste:

| Paste  | Alloy          | Grain Size | Flux content | Jar capacity |
|--------|----------------|------------|--------------|--------------|
| BLF083 | 96.5/3Ag/Cu0,5 | T3         | 12%          | 500g         |

Order example according to DIN:

Solder paste (SC...) L-Sn96.5/Ag3/Cu0.5 / 1.2.3.C / 88 - 3 500g (packing)

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