

# SOLDER CHEMISTRY



# **SOLDER PASTE SC BLFO8**

## Type ISO 1.2.2.C

The solder paste **SOLDER CHEMISTRY BLF 08** is a further development regarding all so called **lead free** SMT-Applications and the desire of customers for an easy printable and longer tacky paste. Especially the use of modified plastics, resins and activators systems etc. in our solder pastes until now 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.

The **BLF 08** is a homogenous mixture of a **lead free solder powder**, available in all required alloys and grain sizes, with an organic flux based on synthetic rosin, according to class RE L0 of J-STD-005 or RMA-qualifying.

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

- \* **BLF 08\*** Excellent resistance against humidity. Very long stickiness!!!
  - \* **BLF 08\*** Forms very homogenous and pipe free solder joints!
  - \* **BLF 08\*** Solders without problems, even on slightly corroded surfaces.
  - \* **BLF 08\*** Residues correspond to the RO L0 classification!
  - \* **BLF 08\*** An outstanding printing quality, for hours, as already known!
  - \* **BLF 08\*** Does, of course, not leave any tar residues in your reflow system.
  - \* **BLF 08\*** Few solid substances with only 5.8% residues at 89% content of metal.

## **PHYSICAL DATA**

<u>Preferred alloys</u>	Melting point	According to international standards we deliver these alloys in the classes of:
Sn96.5/Ag3.5	221°C	
Sn95.5/Ag3.8/Cu0.7	217 - 219°C	class 3    25 - 45 µm
<b>Sn96.5/Ag3/Cu0.5</b>	217°C	class 4    20 - 38 µm
Sn99.3/Cu0.7	227°C	class 5    10 - 25 µm
Sn97/Cu3	227-300°C	

**VISCOSITY** (Pa.S)  $\pm 10\%$  gemessen nach Brookfield RVT-DV II Viskosimeter mit 89% Metallgehalt:

<u>Viscosity:</u> *	Slump according to DIN32513 At the moment                    20min 80°C		Solder balling acc. to IPC	Wetting acc. to IPC
650 Pa.s. powder class III	class 1 = 0.2	0.2		
800 Pa.s. powder class IV	class 2 = 0.2	0.3	1	1

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

Measured on

day 4  
 $3.7 \times 10^{11}$

day 21

## **QUALIFICATIONS**

The solder paste BLF 08 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 ISO, J-STD-004/005 L1) were passed. Laboratory research confirmed corrosion free residues, corresponding to the RO L0, which can remain on the board. If wetting of the PCB can occur during the use of it, even for a short term, appropriate measures against moisture have to be applied.

## **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 90% 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 Stencilcleaner.** The solder paste is applicable with all common reflow systems.

## **STORAGE**

Unopened at room temperature (20°C/68°F): 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.

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

## **Solder Chemistry order example**

Paste type	Grain size	Alloy	Flux content	Jar capacity
BLF08	T3	96.5/Ag3/Cu0.5	12%	500g
BLF08	T3	96.5/Ag3.5	12%	200g

Order example according to DIN:

Solder paste SC BLF08      L-Sn96.5Ag3Cu0.5 1.2.2.C / 88 - 3    500g (packing)

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