

SOLDER CHEMISTRY



SOLDER PASTE SC BLF 081

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, to be able to bridge the rest period between printing and assembly. 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. 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.

The **BLF 081** 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, as well as a high temperature stability, along with a long term processing time and long standing time, these advantages distinguish this paste:

- * **BLF081*** Excellent resistance against humidity. Very long stickiness!!!
- * **BLF081*** Forms very homogenous and pipe free solder joints!
- * **BLF081*** Solders without problems, even on slightly corroded surfaces.
- * **BLF081*** Residues correspond to the RO L0 classification!
- * **BLF081*** An outstanding printing quality, for hours, as already known!
- * **BLF081*** Does, of course, not leave any tar residues in your reflow system.
- * **BLF081*** Residues are nearly nonexistent and limpid.

PHYSICAL DATA

Preferred alloys	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			
Sn96.5/Ag3/Cu0.5	217°C	class 3	25 - 45 µm	
Sn99.3/Cu0.7	227°C	class 4	20 - 38 µm	
Sn97/Cu3	227-300°C	class 5	10 - 25 µm	

VISCOSITY (Pa.S)

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

*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 2.6×10^{11}	day 21 2.8×10^{11}
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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 DIN 32513) were passed. Laboratory research confirmed corrosion free residues, corresponding to the RO 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 Stencilcleaner.** The solder paste is applicable with all common reflow systems.

STORAGE

Unopened (cans!) 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!**

This is how you order your Solder Chemistry paste:

Paste	Alloy	Grain Size	Flux content	Jar capacity
BLF081	96.5/3Ag/0.5Cu	T3	12%	500g

Order example according to DIN:

Solder paste (SC...) L-Sn96.5/Ag3/Cu0.5 / F-SW 32 / 88 - 3 500g (packing)

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