SOLDER CHEMISTRY



SOLDER PASTE SC BLF03

Type ISO 1.2.3.C

The SC BLF03 is a cosequently evolved High-Tech-Product, which is best suitable for all lead-free SMT applications. Its development is not only based on many years of experience on the field of SMT but also the careful and severe consideration of the norms ISO, EN, IPC, und MIL.

The SC BLF03 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 resin corresponding to RE L0 according to J-STD 004 (F-SW32) (exceeds the expectations of RMA!). Thus it belongs to the latest "no-clean" solder paste types. Besides excellent slump resistance, no solder balling, a long stencil and tack life and high temperature stability, this paste has following advantages:

SC BLF03 minimal (4.3%), highly transparent residue, simplifying the in circuit test

- *SC BLF03* a true "no clean" paste
- *SC BLF03* contains corrosion inhibitors
- *SC BLF03* an outstanding printing quality for hours
- *SC BLF03* an huge adhesive power
- *SC BLF03* excellent for fine pitch and super fine pitch applications
- *SC BLF03* superior soldering results with all soldering profiles and ovens

PHYSICAL DATA

Metal alloys

Preferred alloys	Melting point	According to international standards we deliver these alloys in the classes of:
Sn96,5/Ag3,5 Sn95,5/Ag3,8/Cu0,7 Sn96,5/Ag3/Cu0,5 Sn99,3/Cu0,7	221℃ 217 – 219℃ 217℃ 227℃	class 3 25 – 45 μm class 4 20 – 36 μm class 5 10 – 25 μm

VISCOSITY (Pa.S)

Viscosity:*	Slump according to	DIN32513	Solder balling	Wetting acc.
	At the moment	20min 80℃	acc. To IPC	To IPC
750 Pa.s. powder class III	KI.1 = 0.2	0.2		
900 Pa.s. powder class IV	KI.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° with the Helipath-system (+/- 10%). Paste with 90% metal content.

SURFACE RESISTANCE (SIR) and electrolytic corrosion impact according to IPC 650

Measured on	day 4	<u>day 21</u>	
	4,4x10' ³	6,8x10 ^{'2}	

QUALIFICATIONS

SC BLF03 is an RMA paste, which fulfils the demands of MIL-QQ-S571e. The corrosion-, solderballing-, wetting- and slump (SN 59650) tests have been passed. Laboratory tests certify non-corrosive residues, which can be left on the board, even under the protective coating, as the flux corresponds to RE L0 (no clean).

If wetting of the PCB can occur during the use of it, even for a short term, apropriate measures against moisture have to be applied.

STORAGE

Unopened at room temperature (20°C/68°F): 6 months

Open or on the printer squeegee the maximal processing time depends, of course, on the environmental influences on the paste. <u>A storage in the refrigerator is not necessary</u>, but a storage temperature of <22°C is recommended.

APPLICATION INFORMATION

After using the paste close the container tightly.

Do not mix used and fresh paste, only to freshen up paste and only at work in progress. Do not mix pastes of different kind.

Recommended squeegee speed: 15-100 mm/s.

For stencil printing, paste with 90% metal content is recommended.

Note: the printer is always faster than the fastest assembler in the production line.

The printer squeegee must be set to ensure that the paste performs a rolling action in front of the squeegee and does not slide!

The stencil can be washed with an alcohol mixture but the alcohol must not contaminate fresh paste. **We recommend the SC Stencil Cleaner**.

The paste is suitable for all common reflow systems.

Solder Chemistry order example

Legend	Paste type	Grain size	Alloy	Flux content	Jar capacity
e.g.	SC BLF03	F	95,5/3,8/0,7Cu	10%	500g
	SC BLF03	F	96,5/3,5Ag	10%	200g

Order example according to DIN:

Solder Paste(SC)	L-Sn96,5Ag3,5	/ F-SW 32 / 90-3	200g(packing)
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