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	221°C		
Sn95.5/Ag3.8/Cu0.7	217 - 219°C	class 3 25 – 45 μm	
Sn96.5/Ag3/Cu0.5	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)

Viscosity:*		Slump according to DIN32513		Solder balling	Wetting acc.
		At the moment	20min 80°C	acc. To IPC	To IPC
Fine (T3)	750 Pa·s	class1 = 0.2	0.2		
Superfine (T4)	900 Pa⋅s	class2 = 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 IPC 650

Measured on day 4 <u>day 21</u> 4,4x10^{'3} 6.8x10

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).

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. **A storage in the refrigerator is not necessary**, 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 89% 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

Paste type	Alloy	Grain size	Flux content	Jar capacity
SC BLF03	96.5/3.0Ag/0.5Cu	T3	11%	500g
SC BLF03	96.5/3.5Ag	T3	11%	200g

Order example according to DIN:

Solder Paste(SC...) L-Sn96.5Ag3/Cu0.5 / 1.2.3.C / 89-3 200g(packing)

Solder Chemistry; Fragnerstrasse 4; D-84034 Landshut

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