SOLDER CHEMISTRY

SOLDER PASTE SC BLF05

Type ISO 1.2.3.C

The solder paste SOLDER CHEMISTRY SC BLF05 is one of the latest, promising creations specifically suitable for soldering in vapor phase and under inert gas. Not only many years of experience in the SMT field and a lasting cooperation with users of vapor phase ovens, but also the careful and strict consideration of ISO-, EN-, IPC-,and MIL-standards were part of a complete development for the future.
SC BLF05 is a homogeneous mixture of solder powder, in all required alloys and grain sizes, and an organic flux based on synthetic rosin, corresponding to RE L0 according to J-STD-004, being thus one of the very best ”vapor phase” solder pastes.
Besides excellent slump resistance, no solder balling, a long stencil and tack life and high temperature stability, this paste has following advantages:

*SC BLF05 * minimal (2.4%), highly transparent residue
*SC BLF05 * no ”tombstoning”
*SC BLF05 * an outstanding printing quality, for hours!
*SC BLF05 * contains corrosion inhibitors
*SC BLF05 * excellent soldering results, even at 5% of Oxygen in N_2-systems
*SC BLF05 * the polymer basis guarantees no tar residues in your reflow oven

PHYSICAL PROPERTIES:

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:*		Slump according to DIN32513 At the moment	20min 80°C	Solder balling acc. To IPC	Wetting acc. To IPC
650 - 750 Pas	powder class III	class 1 = 0.2	0.2		
700 - 800 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.

S.I.R. AND ELECTROMIGRATION comparable to DIN 32513

Day measured	4th	21st
	$2.8 \cdot 10^{13}$	$3.5 \cdot 10^{13}$

Qualification

SC BLF05 is a vapor phase paste, as much as a N_2-paste, which fulfils the demands of leading companies in the field of vapor phase and N_2 soldering. The corrosion-, solderballing-, wetting- and slump 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 16h of processing time are normal. But even though the paste is fairly resistant to any climate, extreme conditions, like very dry or very humid (90%) air, can shorten the processing time noticeable. The storage time though, the jar must be closed tightly, can reach a couple of weeks.

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 (We recommend the SC Stencil Cleaner). The alcohol must not contaminate fresh paste.
The paste is suitable for all common reflow systems.

Solder Chemistry order example

Paste	Alloy	Grain size	Flux content	Jar capacity
SC BLF05	96.5/3.0Ag/0.5Cu	T3	10%	500 g
SC BLF05	96.5/3.5Ag	T4	10%	500 g

Order example after DIN:

Solder paste (SC...) L-Sn96.5Ag3.5 / F-SW33 / 90-3 500 g (packing)

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