SOLDER CHEMISTRY

SOLDER PASTE SC BLF081

Type ISO 1.2.2.C

The solder paste **SOLDER CHEMISTRY BLF081** our recently developed product for especially all so called <u>lead free SMT applications</u>. **Key aspects of its origin was a very long tackiness time independent to environmental conditions like high temperature or humidity.** Our "brand mark" as very small residues staying closely to the solder joint, excellent wetting etc are given as before. Though thanks to the application of modern chemical substances like plastics and resins, activator systems etc. all our pastes were always able to be combined together with lead free alloys, the latest perceptions in "lead free soldering" have cotributed to this new development. Of course the careful and severe consideration of the norms DIN, EN, IPC and MIL are part of this product, too.

The **BLF081** is a homogenous mixture of a <u>lead free solder powder</u>, available in all required alloys and grain sizes, with an organic flux based on synthetic rosin, according to class RE L0 of ISO9453 absolutely **non-halogen**, surpass the DIN EN61190-1-1. RE L0 or J-STD-004 qualifying.

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

* **BLF081*** Excellent resistance against humidity. Very long stickiness!

* **BLF081*** Forms very homogenous and pipe free solder joints.

* **BLF081*** An outstanding printing quality, for hours! Stable Viscosity.

* **BLF081*** Does not flux splattering.

* **BLF081*** Does not leave any tar residues in your reflow system.

* **BLF081*** Soldering without problems even on slightly corroded surfaces.

PHYSICAL DATA

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 Sn98.5/Ag1/Cu0.5	221°C 217 - 219°C 217°C 227°C 217-221°C	class 3 25 – 45 μm class 4 20 – 38 μm class 5 15 – 25 μm		

VISCOSITY (Pa.S)

Viscosity:*		Slump according to	DIN32513	Solder balling	Wetting acc. To
		At the moment	20min 80°C	acc. To IPC	IPC
Superfine (T4)	750 Pa·s	class1 = 0.2	0.2		
Ultrafine (T5)	950 Pa·s	class2 = 0.2	0.2	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 day 21 2.8 x 10¹¹ 1.9 x 10¹

QUALIFICATIONS

The solder paste BLF081 is an RMA-paste that accords to the requirements of the MIL-QQ-S571e. The corrosion-, solderball- and the wetting test as well as the slump (according to ISO, J-STD-004/005) were passed. Laboratory research confirmed non-halogen 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. <u>We recommend thus the SC Stencilcleaner</u>. 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	Grain size	Alloy	Flux content	Jar capacity
SC BLF 81	T4	96.5/3.0Ag/0.5Cu	12%	500g
SC BLF 81	T4	96.5/3.5Ag	12%	500g

Order example according to DIN:

Solder Paste (SC...) L-Sn96,5Ag3,5 / F-SW 32 / 89 - 3 500g (packing)

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