



## SOLDER PASTE SC BLF041

Type ISO 1.2.3.C ; J-STD-004 RE L0

The solder paste **SOLDER CHEMISTRY BLF041** is the consequently development of well-ried BLF04. All knowledge and actually findings of not really secure **lead free SMT applications** also the customer requests and their desirable properties of SMT pastes was respected and involved in its development. **Especially excellent it meets in voids free solder joints and smallest residues very friendly for AOI systems. Also superior wetting results e.g. by BGAs, QFNs or LGAs.**

**Of course since over 20 years known exclusive by all SC solder pastes it does not required the refrigeration!** 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 all known 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 **BLF041** 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 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:

- \* **BLF041\*** **Excellent resistance against humidity.Very long stickiness!**
- \* **BLF041\*** **Forms very homogenous and voids free solder joints.**
- \* **BLF041\*** **An outstanding printing quality, for hours! Stable Viscosity.**
- \* **BLF041\*** **Few solid substances with only 4.8% residues easy washable by all known cleaner.**
- \* **BLF041\*** **Residues correspond to the RE L0 classification.**
- \* **BLF041\*** **Does not leave any tar residues in your reflow system.**
- \* **BLF041\*** **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	221°C	
Sn95.5/Ag3.8/Cu0.7	217 - 219°C	class 3 25 – 45 µm
<b>Sn96.5/Ag3/Cu0.5</b>	217°C	class 4 20 – 36 µm
Sn99.3/Cu0.7	227°C	class 5 10 – 25 µm
Sn97/Cu3	227-300°C	

### VISCOSITY (Pa.S)

<u>Viscosity</u> .*		Slump according to DIN32513 At the moment	DIN32513 20min 80°C	Solder balling acc. To IPC	Wetting acc. To IPC
Fine (T3)	650 Pa·s	class1 = 0.2	0.2		
Superfine (T4)	750 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	<u>day 21</u>
	2.8 x 10 <sup>11</sup>	3.1 x 10 <sup>11</sup>

## QUALIFICATIONS

The solder paste BLF041 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 L1) 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 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 041	T3	96.5/Ag3.0/Cu0.5	12%	500g
SC BLF 041	T3	95.5/Ag3.8/Cu0.7	12%	500g

Order example according to DIN:

Solder Paste (SC...)      L-Sn96,5Ag3,5 / 1.2.3.C / 88 - 3      500g (packing)

Solder Chemistry ; Fragnerstraße 4 ; D-84034 Landshut  
Tel. ++49/871/4309500 ; Fax. ++49/871/43095020  
e-Mail: info@SolderChemistry.com ; www.SolderChemistry.com

The engineering data shown here has been compiled by Solder Chemistry using commonly accepted procedures. Although the data is considered accurate, we cannot guarantee its accuracy, the results obtained from its use, or any patent infringement resulting from its use. The data is supplied on the condition that the user shall conduct tests to determine material suitability for a particular application.