SOLDER CHEMISTRY

SOLDER PASTE SC 181

Type ISO 1.2.3.C

The solder paste SOLDER CHEMISTRY SC 181 is a high tech product specifically suitable for all SMT applications. Many years of experience in the SMT field and a well-funded knowledge in polymer chemistry were part of a complete development for the future. A real "synthetic" paste! Absolutely halogen free!
The SC 181 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-005 and ISO 1.2.3.C being thus one of the very best "no clean synthetic" 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 181	minimal (4.1%), highly transparent residue, simplifying the in circuit test
SC 181	solve all pin-in-paste applications or problems
SC 181	an outstanding printing quality, from the first squeegee move, with optional stops and in any climate
SC 181	long tacky time for days between printing and assembling
SC 181	excellent even for ultrafine pitch applications
SC 181	superior soldering results with all soldering profiles and ovens
SC 181	the polymer basis guarantees no tar residues in your reflow oven

PHYSICAL PROPERTIES:
Preferred alloys of solder powder: 62Sn/36Pb/2Ag, 63Sn/37Pb and 10Sn\88Pb\2Ag (268-302°C) and 1Sn/97,5Pb/1,5Ag (Sp-309°C)

Grain size definition:

SC 181	DIN 32 513	Diameter	Mesh size
Fine (T3)	class 3	20-45 µm	325-500
Superfine (T4)	class 4	15-30 µm	400-700

VISCOSITY (Pa.s) +/-10% measured with Brookfield RVT-DV-II viscometer at 90% metal content

Grain size	Viscosity
Fine (T3)	580 - 680

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

Day measured	4th	21st
	$3.2 \cdot 10^{11}$	$5.3 \cdot 10^{11}$

Qualification

SC 181 is an RMA paste, which fulfils the demands of DIN, ISO, EN and 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 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. Closed containers should be stored in a cool place, a storage in a refrigerator is not urgently required. Storage temperatures of <32°C are sufficient.

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

Paste	Alloy	Grain size	Flux content	Jar capacity
SC 181	62/36/2Ag	T3	10%	500 g
SC 181	63/37	T3	10%	500 g

Order example after DIN:

Solder Paste (SC...) L-Sn62Pb2Ag /1.2.3.C/90-3 500 g (packing)

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