Activated, No-clean SnPb(Ag) solder paste

IF 9009lt SnPb(Ag) is an activated no-clean solder paste that shows good wetting on strongly oxidized surface finishes and surfaces with poor wettability.

The solder paste does not contain any rosin resulting in less harmful fumes and less oven maintenance.

The residues after reflow are minimal and clear, they are easy to be penetrated by flying probe- and ICT-test pins. Residues can be can be cleaned when cleaning is desired.

IF 9009lt SnPb(Ag) is classified as RE L1 according IPC and EN standards.

Products pictured may differ from the product delivered

Key properties

- Excellent wetting on surfaces with poor wettability
- Excellent wetting on strongly oxidized board finishes
- Clear residues after reflow

Availability

alloy	melting point	metal content	powder size	packaging
Sn63Pb37	~183°C	printing: ~ 90% dispensing: ~ 86%	type 3 type 4	jars :500g
Sn62Pb36Ag2	~179°C			syringes : 5CC/10CC/30CC
other alloys upon request				other packaging upon

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Profile recommendations for IF 9009lt SnPb(Ag)

In general a profile with limited soak is advised. Also linear ramp profiles and soak profiles are possible. Soak profiles may be used when temperature differences across a board, due to a high mix of components or large board sizes, need to be levelled out or when voids, if present, need to be decreased.

It is very important to know the temperature limitations of the components used on the board. To get a good thermal mapping of the board it is advised to use thermocouples and a thermal measuring tool. Measure on small outline, big outline and temperature sensitive components. Measure on the board side near the conveyor chain, in the middle of the board and close to, or on heat sinks.

Preheat

To allow absorbed moisture in the components to evaporate slowly and avoid component cracking, keep a steady heating rate between 1-3°C/s until about 170°C. For that purpose try to avoid a hot air temperature setting in the first heating zone above 150°C.

Soak

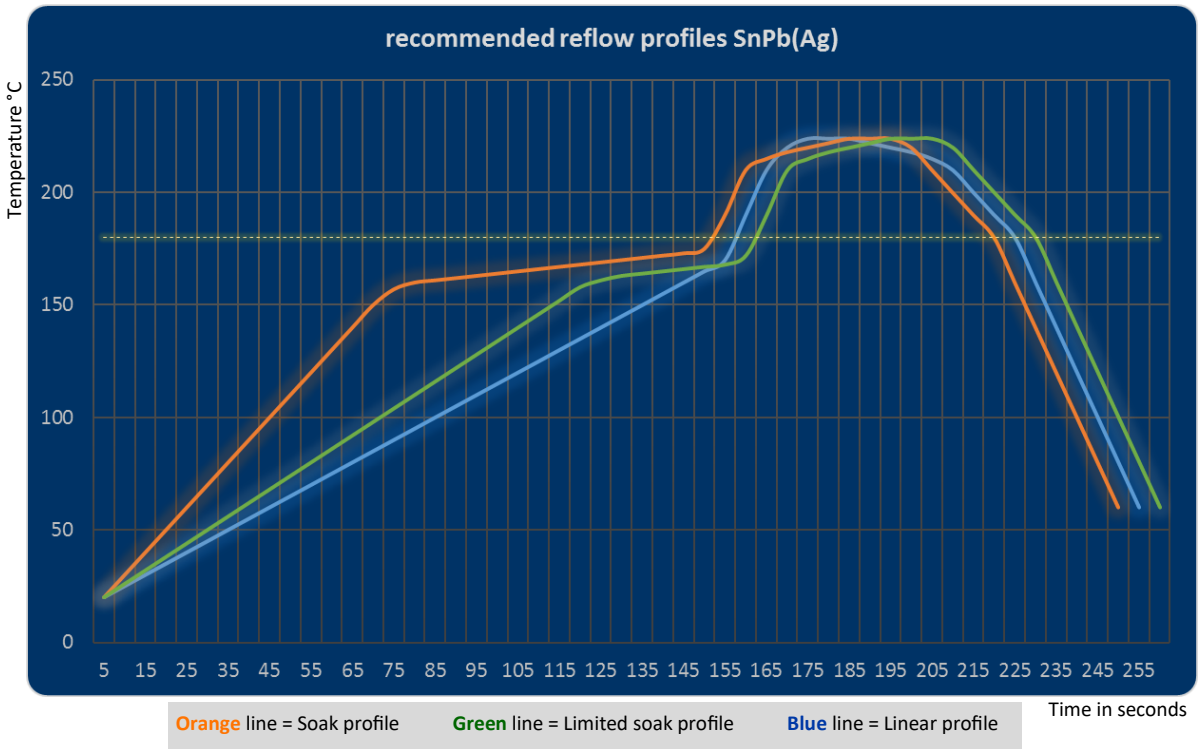
A soak zone between 150°C and 170°C for 0-90s at 0-1°C/s can be used to level out temperature differences and/or reduce voiding.

Reflow

Peak temperature used is related to component specifications. In general between 200°C and 230°C. The time in liquidus (over melting point of the alloy used) could be between 30s and 90s.

Cooling

It is advised to cool not faster than -4°C/s because of differences in thermal expansion of different materials (component and boards). Faster cooling in general gives stronger solder joints.



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Handling

Storage

Store the solder paste in the original packaging, tightly sealed at a preferred temperature of 3° to 7°C. Shelf life of jars is 12 months, shelf life of syringes is 6 months.

Handling jars

Let the solder paste reach room temperature prior to opening the jar. Stir well before use.

Printing

Assure good sealing between PCB and stencil. A negative print gap of 0,2 to 0,4mm is advisable. Apply no more than enough squeegee pressure to get a clean stencil. Apply enough solder paste to the stencil to allow smooth rolling during printing. Regular replenish fresh solder paste.

Maintenance

Set an under stencil clean interval which provides continuous printing quality. **ISC8020** is recommended as cleaning agent in pre saturated wipes and USC liquid.

Reuse

Avoid mixing used and fresh paste in a jar. Do not put packages back into refrigeration when already opened. Store used paste in a separate jar at room temperature. A test board before reusing in production is advisable.

Test results

conform IPC J-STD-004A/J-STD-005

Property	Result	Method
Chemical		
qualitative copper mirror	**pass**	J-STD-004A IPC-TM-650 2.3.32
silver chromate (Cl, Br)	**pass**	J-STD-004A IPC-TM-650 2.3.33
flux classification	**RE L1**	J-STD-004A
spread test	**137,89 mm²**	J-STD-004 IPC-TM-650, 2.4.46
Environmental		
SIR test	**pass**	J-STD-004A IPC-TM-650 2.6.3.3
Mechanical		
solder ball test after 15min	**pass**	J-STD-005 IPC-TM-650 2.4.43
after 4h	**acceptable**	J-STD-005 IPC-TM-650 2.4.43
wetting test	**pass**	J-STD-005 IPC-TM-650 2.4.45
slump test after 15min at 25°C	**pass**	J-STD-005 IPC-TM-650 2.4.35
after 10min at 150°C	**pass**	J-STD-005 IPC-TM-650 2.4.35

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Health and safety

Please always consult the safety datasheet of the product.

Operating parameter recommendations

Printing

speed:	20—70 mm/sec
squeegee pressure:	250g—350g/cm length
U.S.C. interval:	every 10 boards
Preferred temperature range:	15 to 25°C
Preferred humidity range:	40% to 75% r.H.
Stencil life:	>8hrs

Mounting

tack time:	>4 hrs

Reflow

reflow profile:	linear and soak
heating type:	convection, vapour phase,...

I.C.T

flying probe testable
pin-bed testable

Cleaning

Cleaning of the paste from stencils and tools is recommended with Interflux® **ISC 8020.**

The post reflow residues of IF 9009lt are reliable and do not need to be cleaned, however they can be cleaned if desired.

A compatibility list between some Interflux® products and some Zestron®, Kolb and Kyzen cleaning products is available at Interflux.

Trade name : IF 9009lt SnPb(Ag) No-Clean Solder Paste

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