Solder Paste **LP 5707** SnPb(Ag)

No-clean, halide free solder paste

Description

LP 5707 SnPb(Ag) is a no-clean, halide free solder paste that has been developed for soldering without nitrogen and long, high reflow profiles.

Additionally the solder paste exhibits extremely low tendency towards solder ball formation.

The absolutely halogen free soldering chemistry, used in **LP 5707 SnPb(Ag)** prevents dewetting when submitted to high temperatures or long profiles, also when soldering without nitrogen.

The solder paste keeps its rheological properties on the stencil for a long time, even under high or low humidity conditions.

Furthermore, the chemistry of **LP 5707 SnPb(Ag)** has been designed to minimize void formation.

LP 5707 SnPb(Ag) is classified as **RO L0** according IPC and EN standards.

Products pictured may differ from the product delivered

Availability

alloy	metal content	powder size	packaging
Sn63Pb37 Sn62Pb36Ag2 ATK anti tombstone	printing: 89% - 90% dispensing: 86% - 87%	standard type 3 (25— 45µ) type 4 and type 5 available for certain alloys	500g jar 1kg—1,2kg—1,3kg in 12 Oz. cartridge 5cc— 10cc— 30cc syringe Other packaging upon request

More information:

Key advantages:

- High and long profile resistant without nitrogen
- Prevents dewetting
- High stability on the stencil, also under more extreme atmospheric conditions
- Low solder ball formation tendency
- Low voiding
- Low transparent residue after reflow
- Absolutely halogen free

Reflow profile for SnPb(Ag) alloys

General description

LP 5707 SnPb(Ag) is designed to withstand long and high reflow profiles, also under atmospheric conditions without nitrogen. Both soak and ramp profiles are possible. In general a soak profile is advised and 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 the number of voids, if present because of material combination, need to be decreased.

When soldering an assembly in a reflow process, care must be taken not to overheat components especially when using air convection or IR ovens. 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.

Profile recommendations (for SnPb(Ag) alloys)

LP 5707 SnPb(Ag) has a wide process window in reflow with few limitations. Below are a few examples of profiles that can be used. It is advisable to limit peak T° to 250° C and keep total profile length (from room to peak T°) below 8 minutes.

Preheat

From room T° till +/- 120°C :max. 3°C/s.

Higher heating rates could result in component cracking due to absorbed moisture.

Soak

Usually between 120°C - 170°C: 0°C/s - 1°C/s.

Ramp up to reflow

Max. 4°C/s because of differences in thermal expansion of the materials on the PCB

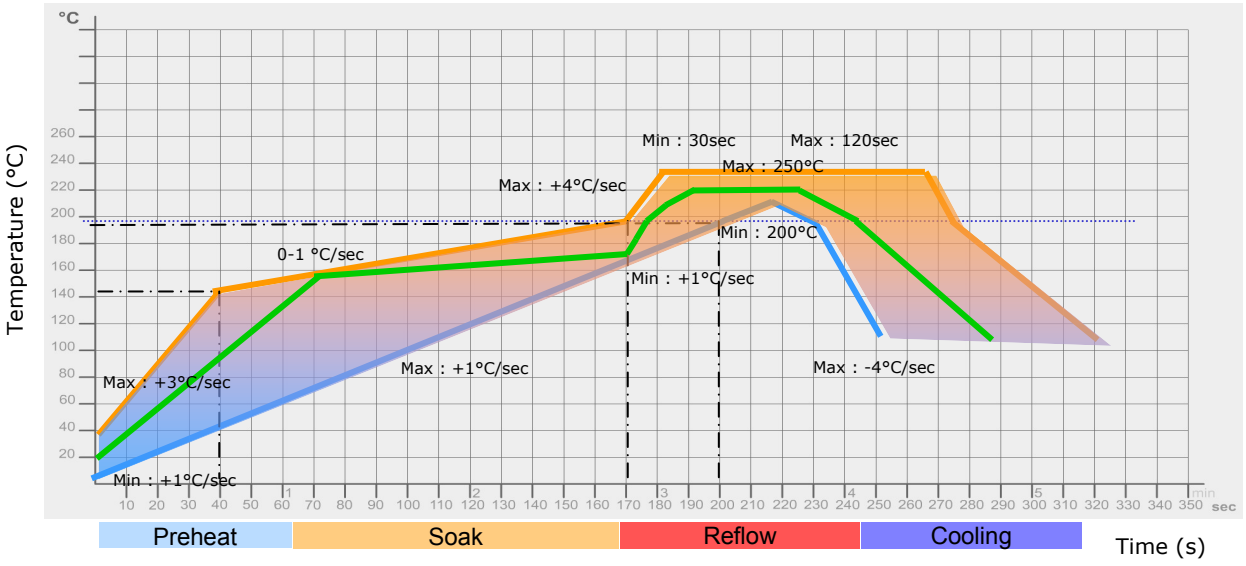
Reflow

Peak T° is related to PCB and component specifications. In general between 200°C and 230°C.

The time in liquidus (over melting point of the alloy) usually: 45s - 90s

Cooling

Cooling rate not faster than -4°C/s because of differences in thermal expansion of the materials.



N.V. INTERFLUX® ELECTRONICS S.A. - Eddastraat 51—BE-9042 Gent
tel.: +32-9-251.49.59— fax.: +32-9-251.49.70
www.interflux.com

Handling

Storage

Store the solder paste in the original packaging, tightly sealed at a preferred temperature of 3° to 7°C.

Handling

Let the solder paste reach room T° prior to opening the packaging. Stir well before use.

Printing

Assure good sealing between PCB and stencil. 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. This interval will depend on the PCB, the stencil and the atmospheric conditions. **ISC8020** is recommended as cleaning agent in pre saturated wipes and USC liquid.

Reuse

Store used paste in a separate closed jar at room T° in a container with water absorbing material. Before reuse, test the solder paste. When storing for a longer time, press the inner lid firmly on the paste, so that no air is enclosed, clean off paste residues, put on the outer lid and put back into refrigeration. Before reuse, let the solder paste reach room temperature prior to opening and test the solder paste.

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
halide content	**none**	J-STD-004A IPC-TM-650 2.3.28.1
silver chromate (Cl, Br)	**pass**	J-STD-004A IPC-TM-650 2.3.33
flux classification	**RO L0**	J-STD-004A
Environmental		
SIR test	**pass**	J-STD-004A IPC-TM-650 2.6.3.3

Property		Result	Method
Mechanical			
solder ball test	after 15min	**pass**	J-STD-005 IPC-TM-650 2.4.43
	after 4h	**pass**	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

N.V. INTERFLUX® ELECTRONICS S.A. - Eddastraat 51—BE-9042 Gent
tel.: +32-9-251.49.59— fax.: +32-9-251.49.70
www.interflux.com

Operating parameter recommendations

Printing

speed:	20—150 mm/sec
squeegee pressure:	250g—350g/cm length
preferred temperature range:	15 to 25°C
preferred humidity range:	25 % to 90% r.H.

Mounting

tack time:	>8 hours

I.C.T

flying probe testable
pin-bed testable

Trade name : LP 5707 SnPb(Ag) No-Clean, Halide Free Solder Paste

D i s c l a i m e r

Because Interflux® Electronics N.V. cannot anticipate or control the many different conditions under which this information and our products may be used, we do not guarantee the applicability or the accuracy of this information or the suitability of our products in any given situation. Users of our products should make their own test to determine the suitability of each such product for their particular purposes. The product discussed is sold without such warranty, either express or implied.

Please consult the latest version of this document on:
www.interflux.com

This document in another language?:
www.interflux.com