NO CLEAN SOLDERPASTE
TYPE IF 9009

1. Description

The solder paste IF 9009 has been especially developed to replace Rosin containing solder pastes. It has good tackiness,no slump,high stencil life and tack life. The solder paste eliminates the disadvantages of Rosin: it gives no harmful fumes and less oven maintenance, the residues after reflow are minimal and clear, they do not give flying probe or ICT contact problems.
IF 9009 solder paste keeps its rheology characteristics during screening, resulting into a stable screen process. IF 9009 is hydrophobic and gives no solderballing after reflow. The residues can be easily cleaned with Interflux® ICM 505 and Dr Wack cleaning medium (Zestron FA).

2. Properties:

- Suitable for high printing speed.
- Requires only very low squeegee. pressure (increases the stencil and the squeegee life !!).
- Stencil life > 24 hours.
- Tack life > 8 hours.(*)
- Stable printing between 18 and 35°C.
- No disturbing smell.
- Excellent wetting on Sn/Pb, OSP,NiAu.
- No slump.
- Low residue after reflow.
- No In-Circuit-Testing problematic.

(*) Prolong tack life by storing printed boards under airtight cover(plastic bag).

3. Standards :

Alloys : Sn63/Pb37 (T_m=183°C)
Sn62/Pb/Ag2 (T_m=179°C)

Powder size : 75µ-45µ (Type 2)
45µ-25µ (Type 3)
38µ-20µ (Type 4)(*)
25µ-15µ (Type 5)(*)

(*) On request, adapted metal content possible

Metal content : 89.5% in weight (printing) (Sn62, Sn63).
84% in weight (dispensing). (Sn62, Sn63).

Packaging : 500 gram jars
Cartridges: 0,5 and 1 Kg
Syringes of 5, 10, 30cc.
Proflow cassette
PuckPack™ 800g

Shelf life : 6 months.

4. Test reports

IPC J-STD-004 and J-STD-005
Siemens approval(pending)

5. Application

5.1 Storage :

Store the solder paste in tightly sealed jars, preferably in a refrigerator at about 7°C.

5.2 Handling :

Ensure the paste has reached room temperature in the closed jar to prevent water condensation. Stir well before use.

5.3 Printing:

Apply a bead of 1-2 cm to the stencil to allow smooth roll during printing. Regularly add small amounts of fresh solder to the stencil.

5.4 Reflow :

Reflow can be done in air or in Nitrogen. Generally a Soak Profile (with temperature plateau at 120-150°C) is recommended for IR based ovens and a Ramp Profile (continuous temperature rise) for full convection ovens. Time above melting point in the reflow zone should be between 30 and 90 seconds, with a peak of 30 to 50°C above T_m

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6. Cleaning of equipment

Paste removal from the stencil or screen can be done by using **Interflux stencil cleaning wipes**. For underside stencil cleaning we advise **IF 7136** cleaning fluid. We advise not to use alcohol based cleaners(such as isopropyl alcohol) because they or their vapours can dry out the solder paste.

7. Printed boards waiting for assembly

We advise to store printed boards that are waiting for assembly underneath an airtight cover. Cover racks with printed boards for example with a plastic bag. The solder paste can then remain in good condition for 48 hrs.

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TEST RESULTS OF INTERFLUX® IF 9009

*** Copper mirror test**

Applied Standards: J-STD-004, '95
IPC-TM-650 Method 2.3.32
Requirement: No discoloration or removal of the Cu film
Results: Solder paste : Passed

*** Presence of halides in the flux** (Silver Chromate test paper)

Applied Standards: J-STD-004, '95
IPC-TM-650 Method 2.3.33
Requirement: No colour change
Results: Raw flux: Passed

*** Surface Insulation test**

Applied Standards: J-STD-004, '95
IPC-TM-650 Method 2.6.3.3
Requirement: After 24 hrs, 96 hrs and 168 hrs at 85°C, 85% R.H., with applied bias 50 V DC, must be 1 x 10^8 Ohm or 100 Mohm. (Measurement with 100 VDC)
Results: Passed

	Board 1	Board 2	Board 3	Board 4
Initial value:	3.04 x 10^{12} Ohm	1.26 x 10^{12} Ohm	4.86 x 10^{12} Ohm	4.45 x 10^{12} Ohm
24 hrs:	1.16 x 10^9 Ohm	1.09 x 10^9 Ohm	1.11 x 10^9 Ohm	1.80 x 10^9 Ohm
96 hrs:	9.51 x 10^8 Ohm	7.42 x 10^8 Ohm	7.38 x 10^8 Ohm	1.04 x 10^9 Ohm
168 hrs:	8.41 x 10^8 Ohm	5.45 x 10^8 Ohm	5.33 x 10^8 Ohm	8.17 x 10^8 Ohm

Climatic chamber cooled down, measurement after 24 hour at ambient T°.

3.22 x 10^{12} Ohm	8.63 x 10^{11} Ohm	6.15 x 10^{11} Ohm	8.61 x 10^{11} Ohm

Board 1 Control Board
Board 2 Solder paste Rampprofile : 165°C - 190°C - 200°C - 415°C - 400°C 0.4 m/min
Board 3 Solder paste Rampprofile : 165°C - 190°C - 200°C - 415°C - 400°C 0.4m/min
Board 4 Pure Flux

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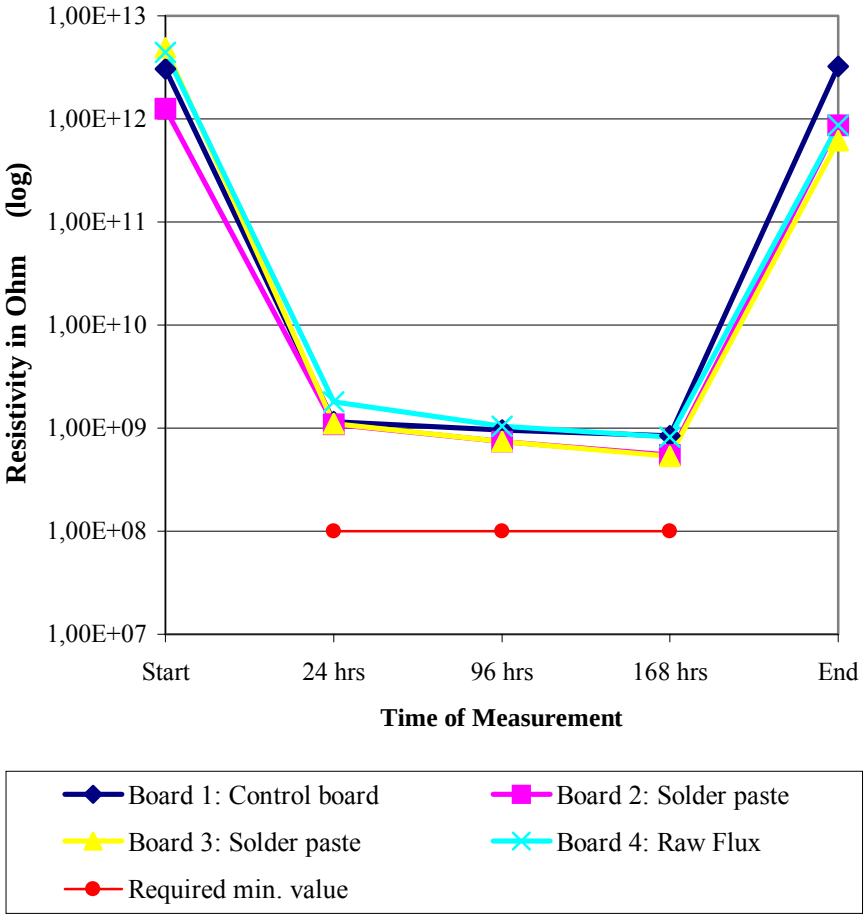
INTERFLUX® SOLDER PASTE
IF 9009



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*** Solder ball test**

Applied Standards:	J-STD-005, '95
	IPC-TM-650 Method 2.4.43
Requirement:	Reflow within 15 minutes
	Reflow after 4 hours
Results:	Reflow within 15 min.: Preferred
	Reflow after 4 hrs: Preferred

*** Wetting test**

Applied Standards:	J-STD-005, '95
	IPC-TM-650, Method 2.4.45
Requirement:	Shall uniformly wet the Cu coupon without evidence of dewetting or non wetting
Results:	Passed

*** Spread test**

Applied Standards:	J-STD-004, '95
	IPC-TM-650, Method 2.4.46
Requirement:	Solder spread is expressed in mm^2
Results:	115.97 mm^2

*** Slump test**

Applied Standards:	J-STD-005, '95
	IPC-TM-650, Method 2.4.35
Requirement:	15 min. at 25°C, 50% R.H. and 10 min. at 150°C, no slump effect or bridging may occur.
Results:	After 15 min.at 25°C, 50% R.H.: Passed
	After 10 min at 150°C: Passed

*** Metal content**

Applied Standards :	J-STD-005, >95
	IPC-TM-650, Method 2.2.20
Requirement :	Expressed in %
Results :	89.5% (Printing)
	84% (Dispensing)

*** The solder powder**

Only high quality solder powders are used.
A certificate of analysis is available on request, including the particle size distribution.

For more information about health and safety we refer to our MSDS.

Product information in other European languages can be obtained at *Interflux® Solder NV, 9042 Gent.* Because we 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 tests to determine the suitability of each such product for their particular purposes. The products discussed are sold without such warranty, either expressed or implied.

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