RSN 70 LF

SOLDER PASTE
NO-CLEAN
"LEAD FREE"

Created : 05/01/2017 Updated : 28/08/2018 Index : 07

DESCRIPTION

RSN 70 LF no-clean solder paste has been developed in MBO laboratories. It is designed to offer a high level of activity by leaving low residues, clear and non-corrosive. This product, suitable for printing applications meets the international requirements of the electronics industry.

- **ROL0 classification (J-STD-004)**
- Halide free.
- **RoHS compliant**.
- High activity.
- Low and neutral residues.
- Fast print capabilities (up to 120 mm/s). Best results between 40 to 100 mm/s.
- Long abandon time (8 hours).
- Long stencil-life (8 hours).
- Fine-pitch (400µm) and ultra-fine pitch (<300µm) capabilities.
- Type 3 to type 5 available. **Type 6 also available in SAC 305**. Other on request.

RSN 70 LF no-clean solder paste is manufactured in compliance with the international standards.

RSN 70 LF solder paste is suitable for "**Pin in Paste**" applications.

AVAILABLE ALLOYS

Alloy	*Alloy number ISO 9453 (2014)*	*Melting Point (°C)*	*Metal content (%)*	*Viscosity (Pas) Malcom 10 rpm*
Sn96.5Ag3.5	703	221	88 - 89	100 - 150
Sn96.5Ag3 Cu0.5	711	217/220	88 - 89	100 - 150
Sn95.5Ag3.8Cu0.7	713	217	88 - 89	100 - 150
Sn99Ag0.3Cu0.7	501	217/227	88 - 89	100 - 150
Sn98.5Ag1Cu0.5	716	217/227	88 - 89	100 - 150
Sn99CuSP / Sn99.3Cu0.7	401	227	88 - 89	100 - 150
Sn99CuNiGe	403	227	88 - 89	100 - 150
Sn95Sb5	201	235/240	88 - 89	100 - 150
Sn43Bi57	301	139	88 - 89	100 - 150
Sn42Bi57Ag1	NA	139	88.5	100 - 150
Sn42Bi57.6Ag0.4	NA	139	88.5	100 - 150
Other : consult us				

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TECHNICAL DATA

Category	Standard	Results
Activity Level (classification)	IPC J-STD-004	**ROL0**
Halide Content	IPC J-STD-004	**Halide free (by titration)**
Copper Mirror	IPC-TM-650 (2.3.32) /J-STD-004	**Pass** (no evidence of corrosion)
Silver Chromate	IPC-TM-650 (2.3.33)	**Pass**
Surface Insulation Resistance Test (SIR)	GR 78 Core Section 13, 13.1.3.2	**Pass, $1x10^{12}$ ohms**
Electromigration Resistance Testing	GR-78-Core Section 13.1.4	**Pass, $>1x10^{10}$ ohms**
Visual aspect of residues	IPC-HDBK-005	**Clear**
Viscosity	Malcom spiral viscometer (J-STD-005)	**125 Pa.s**
Solder ball test	IPC J-STD-005	**Acceptable**

PRINTING

SolderPaste use: When the solder paste is at room temperature (approximately 4 hours after the release of the fridge), manually stir it vigorously with a spatula for about thirty seconds before deposit it on the printing screen for a proper activation.
To avoid waiting for the solder paste warm-up, an automatic mixer dedicated to the solder paste can be used right out of the fridge. In this case, the increase of the temperature and stirring of the solder paste are performed simultaneously.
For any reuse of solder paste, a new activation of it is necessary.

Stencil
Stainless steel, brass or nickel. Chemical cut, laser cut or electroformed.
Squeegee
Stainless steel (recommended) or 80-100 durometer polyurethane.
Print speed
30-120 mm/s. Best results : 40 to 100 mm/s.
Squeegee pressure
0.15-0.3 Kg/cm of squeegee length
Snap-off
0 to 0.25mm. On contact printing is preferred.
Ambient conditions
20-25°C and 35% to 70% RH. Minimize exposure of solder paste direct to air flow.

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REFLOW

Heating Methods
Convection, infrared, vapour phase, hot plate, hot bar, laser and others. Aerobic or inerted.

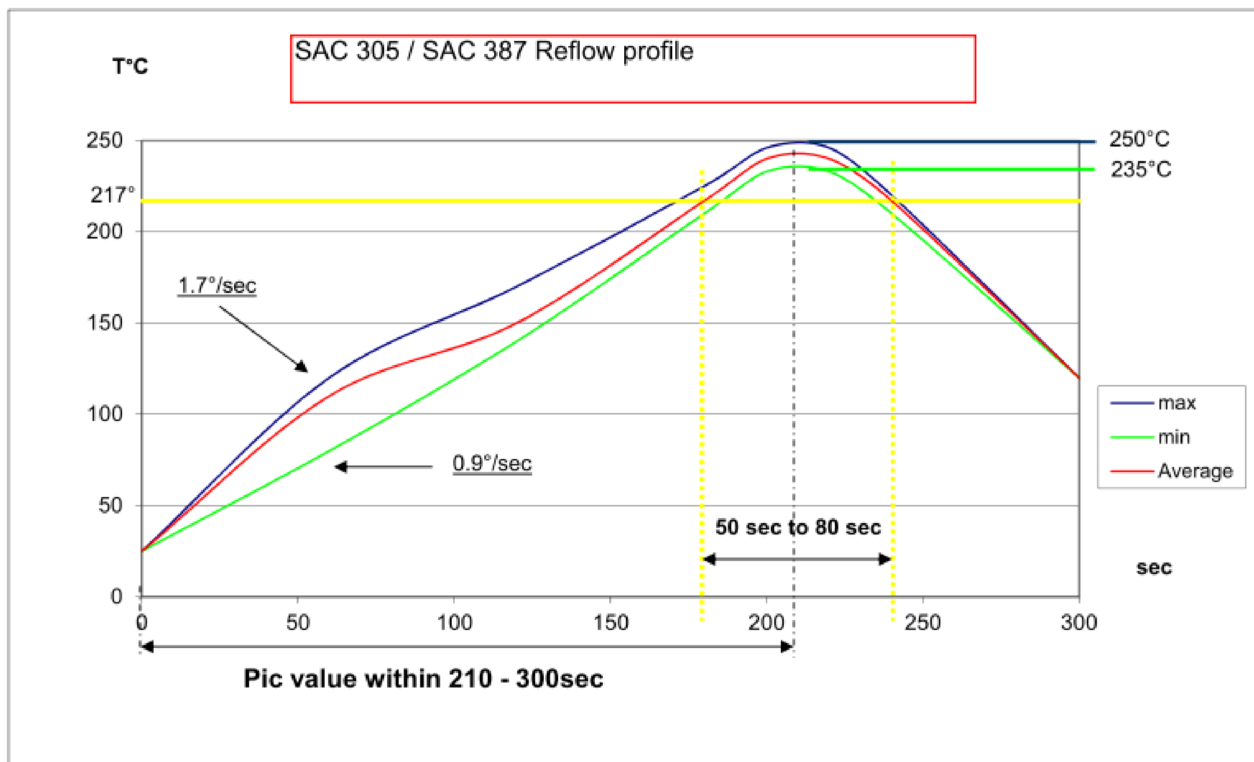
Heating Profile
See suggested reflow profile.

Cleaning Equipment
Spray, immersion, vapour degreaser or scrubber.

Cleaning solvents
Most stencil cleaners, stencil wipes and saponifiers. Although this product is no-clean , if a cleaning card is required, the use of **ZESTRON products (VIGON A200, A201, N600 …)** gives excellent results and is especially recommended .

Temperature
35-60°C.

Spray Pressure
20 to 40 psi.



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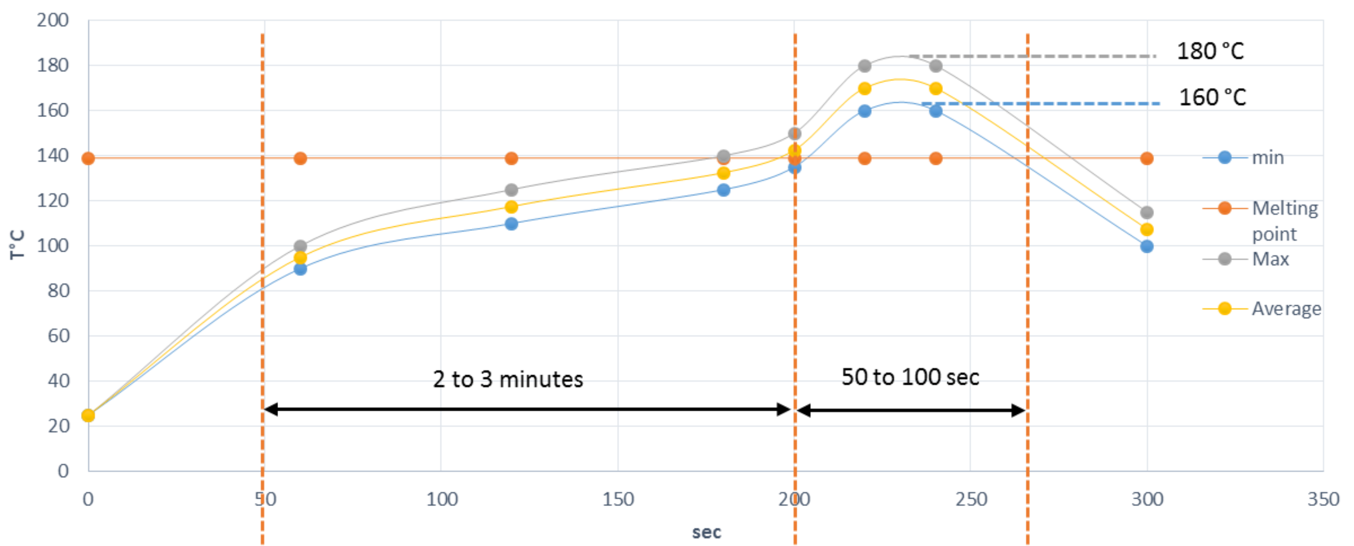

STORAGE AND PACKAGING

Packaging: jars of 250g, 500g - cartridges of 500 and 1000 g - Proflow® of 800g - others on request.

Storage: in original container between 5 and 10°C for up to 12 months. Wait until the pot has reached the ambient temperature before opening to avoid water condensation on the surface of the paste. Once opened, do not return to the fridge if all the jar is consumed in 5 days. <u>Can stay up to 3 weeks at 25 °C temperature (if the inner follower is in contact with the solder paste and the jar is closed with the cap).</u>

Additional information:
Our manufacturing processes have been subjected to FMECA analysis (equivalent of AMDEC in Europe).

We cannot anticipate any and all conditions and situations under which the information and our products or the combination of both with others will be used. We do not assume any liability in the safety and suitability of our products alone or in combination with others. Users must make their own tests to determine the safety and suitability of each product used alone or with other products for their own use. Except any previous written agreement, our products are sold without guarantee and customers must assume all liability for any loss or damage suffered by themselves or by third parties, either from handling or use of our products alone or with others. In case of any difference or variation seen during the use of the products we request that you contact our technical department.

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