

ORION 414 LF JP

SOLDER PASTE NO-CLEAN

"LEAD FREE"

JET PRINTING version



Created : 11/07/2016 Updated : 09/03/2022 Index : 08



DESCRIPTION

ORION 414 LF JP no-clean solder paste has been developed in MBO laboratories. It is designed to offer a high level of activity by leaving low residues, non-corrosive. This product, suitable for **JET PRINTING** applications meets the international requirements of the electronics industry.

- **ROLO classification (J-STD-004)**
- Halide free.
- **RoHS compliant.**
- High activity.
- Low and neutral residues.
- Alloy particle size : type 6 (5-15 μm) or type 5 (15-25 μm)

ORION 414 LF JP no-clean solder paste is manufactured in compliance with the international standards.

AVAILABLE ALLOYS

Alloy	Alloy number ISO 9453 (2014)	Melting Point (°C)	Metal content (%)	Viscosity (Pas) Brookfield 20 °C 5 rpm
Sn96.5Ag3Cu0.5	711	217/220	78 - 84	100/300
Sn42Bi57.6Ag0.4	NA	139	78 - 82	120/300
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, 1×10^{12} ohms
Electromigration Resistance Testing	GR-78-Core Section 13.1.4	Pass, $>1 \times 10^{10}$ ohms
Viscosity	Brookfield viscometer 5 rpm at 20°C	220 Pa.s (SAC 305 – 84)
Solder ball test	IPC J-STD-005	Acceptable

JET PRINTING

Refer to the manufacturer manual of the jetting valve.

Ambient conditions

18-22°C and 35% to 70% RH.

Cleaning

All the standard cleaning products (ZESTRON ...).

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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

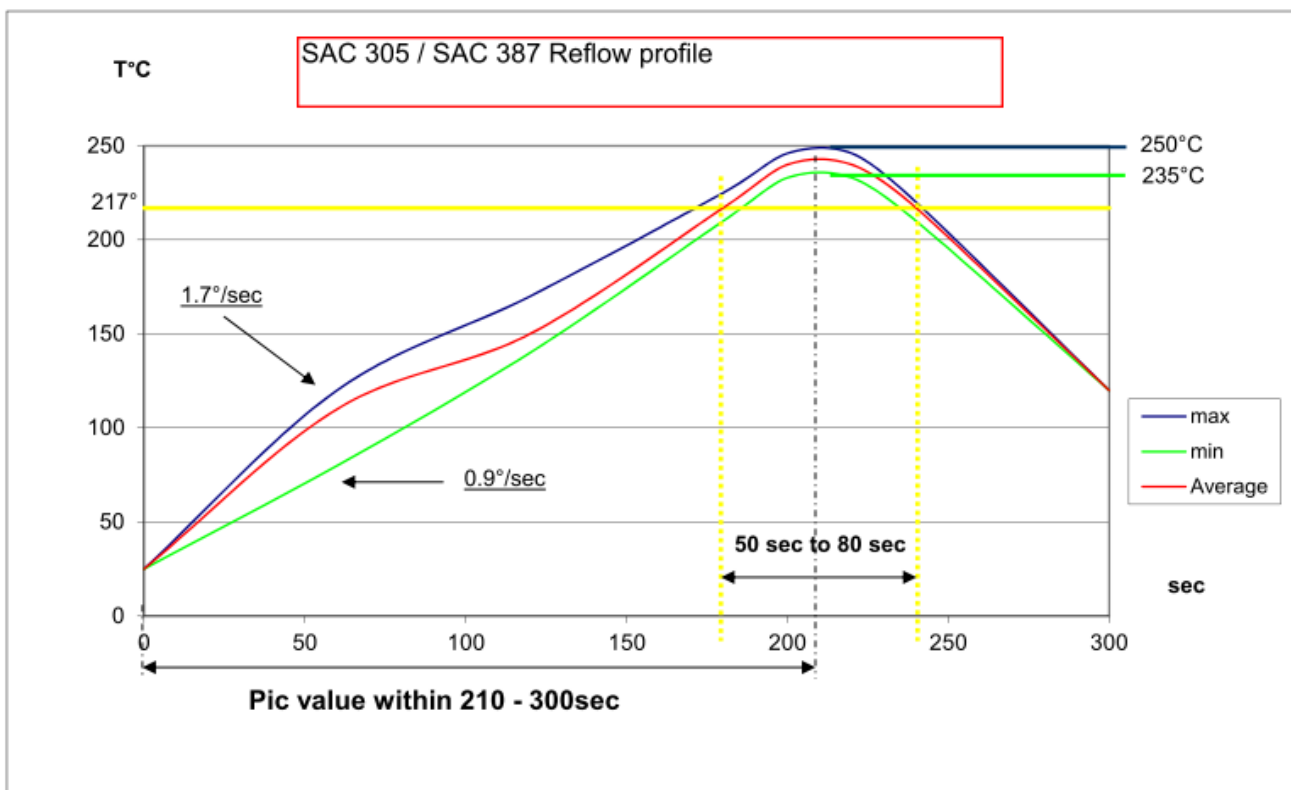
Most cleaners, stencil wipes and saponifiers.

Temperature

35-60°C.

Spray Pressure

20 to 40 psi.



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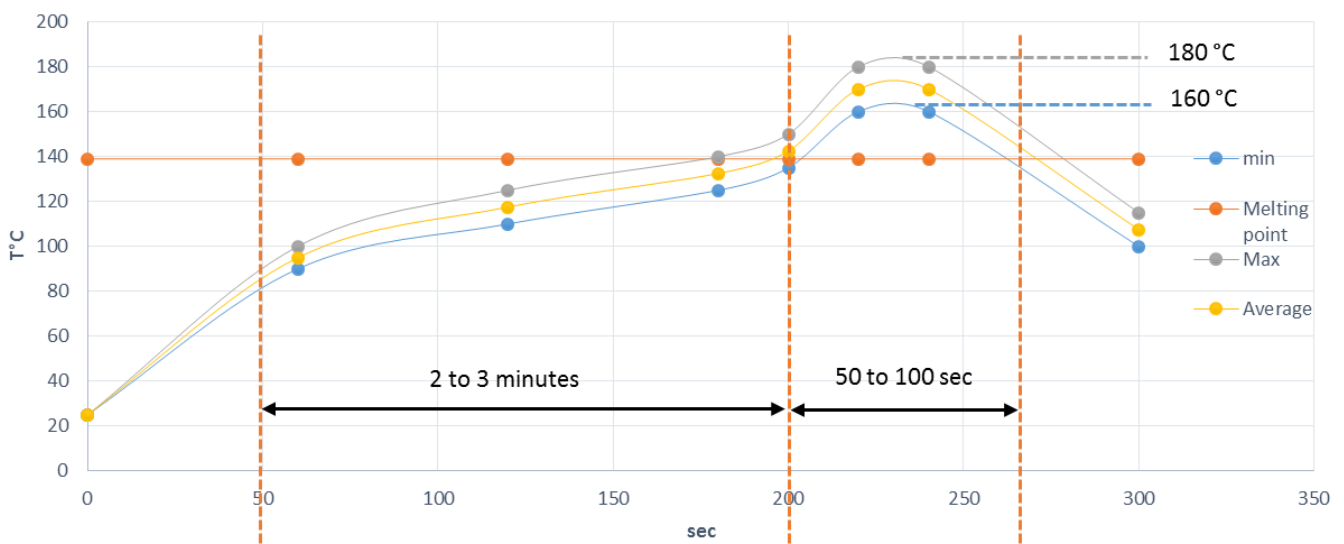
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Sn42Bi57Ag1 / Sn42Bi57.6Ag0.4 / Sn43Bi57 reflow profile



STORAGE AND PACKAGING

Packaging: automatic syringes 10 cc with 30 g of solder paste. Other on request.

Storage: in original container, closed, between 5 and 10°C for up to 6 months. Wait until the syringe has reached the ambient temperature before usage to avoid water condensation on the surface of the paste. Once opened, do not return to the fridge. Should be stored at ambient conditions within two weeks.

Additional information:

Our manufacturing processes have been subjected to FMECA analysis (equivalent of AMDEC in France).

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.