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#### **DESCRIPTION**

**ORION 414 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.

- ROL0 classification (J-STD-004)
- Halide free.
- High activity.
- Low and neutral residues.
- Alloy particle size : type 5 (15-25 μm)

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

### **AVAILABLE ALLOYS**

| Alloy       | Alloy number<br>ISO 9453 (2014) | Melting Point (°C) | Metal content (%) | Viscosity (Pas)<br>Brookfield 20 °C 5 rpm |
|-------------|---------------------------------|--------------------|-------------------|---|
| Sn62Pb36Ag2 | 171                             | 179                | 85 +-0.2          | 200 +- 50                                 |
| Ot          | her : consult us                |                    |                   |   |





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## TECHNICAL DATA

| Category                                       | Standard                            | Results                         |
|--|-------------------------------------|---------------------------------|
| Activity Level                                 | IPC J-STD-004                       | ROL0                            |
| (classification)                               |                                     |                                 |
| 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<br>Resistance Test<br>(SIR) | GR 78 Core Section 13, 13.1.3.2     | Pass, 1x10 <sup>12</sup> ohms   |
| Electromigration<br>Resistance Testing         | GR-78-Core Section 13.1.4           | Pass, >1x10 <sup>10</sup> ohms  |
| Viscosity                                      | Brookfield viscometer 5 rpm at 20°C | 205 Pa.s                        |
| 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**

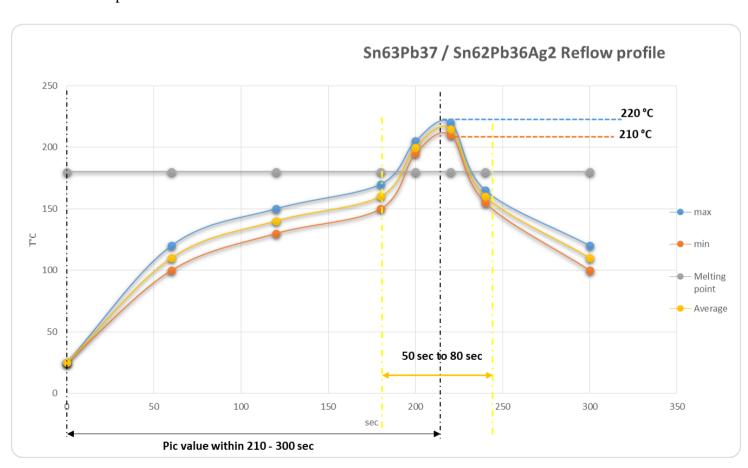
Most cleaners, stencil wipes and saponifiers.

### **Temperature**

35-60°C.

## **Spray Pressure**

20 to 40 psi.







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#### 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 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.