

## Technical Data Sheet



### ASSEMBLY MATERIALS

Product Type: No Clean Solder Paste  
 Product Name: Microbond® SMT911  
 Product ID: SOP 91123 Innolot-89M4

#### Description

SOP 91123 Innolot-89M4 solder paste is no clean solder paste developed for high reliability applications. The flux system is specifically optimized for lead free alloys, with high melting temperature above 200 °C. This formula provides superior performance on a variety of surfaces finishes and leaves a clear residue after reflow. SOP 91123 Innolot-89M4 solder paste contains the Innolot alloy system, which adds Bismuth (Bi), Antimony (Sb) and Nickel (Ni) to a SAC system. Reflow under N<sub>2</sub> is recommended.

#### Key Benefits

- Halogen Zero
- Good wetting under Nitrogen atmosphere
- Anti-Capillary effect beneath QFP & passive components

#### Applications

- Printing

#### Product Code and Alloy

Product Code					Powder Properties		
Paste	Alloy	Metal Content	*Viscosity	Powder Type	Particle Size	Alloy	Melting Point
SOP 91123	Innolot	89.25%	M	4	20 – 38 µm	Sn/Ag3.8/Cu0.7/ Ni0.15/Sb1.5/Bi3	206 - 218 °C

\*D = Dispense grade M = Print grade H = Print grade, high L = Dipping/Jetting grade, Low

#### Flux Activity

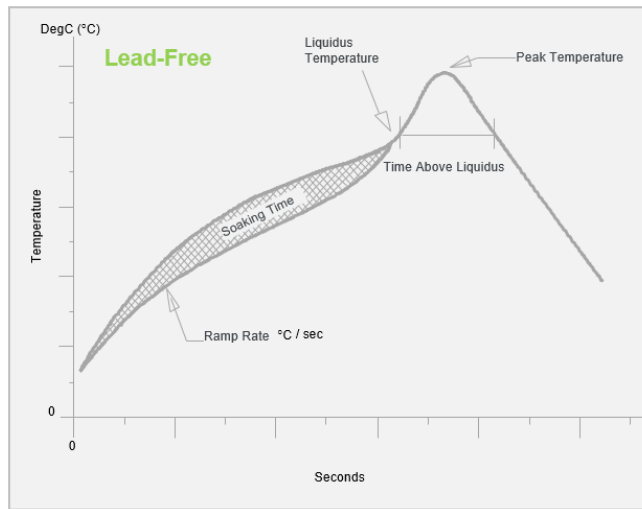
Activity Level (J-STD 004)	ISO 9454-1 {DIN EN 29454-1}	Classification
RELO	1.2.3.C	No Clean/ Solvent Clean

#### Halogen Content

**Halogen-Zero**  
 (No halogen added in the flux)  
 Tolerances: Halogen < 50 ppm; measured according to  
 BS EN 14582

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### Recommended Reflow Profile



\* Graph not drawn to scale

Recommended Profile	
Average Ramp Rate	1 – 3 °C/s
Peak Temperature	15 °C (min) – 40 °C (max) above Melting Temperature
Time above liquidus	45 – 90 s
Reflow Atmosphere Type 3 – 5	Reflow under N <sub>2</sub>

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### Cleaning Instructions

After reflow flux residues may remain on the circuit and do not need to be washed. For cleaning of wet paste or if desired for cleaning of flux residues Zestron and Vigon cleaners can be used – see separate cleaning recommendations.

### Storage

- Store the solder paste in tightly-sealed containers and avoid exposure to sunlight and high humidity
- Max expiration date: please refer to the expiry date on the label of the packaged product
- Storage condition in the refrigerator at 2 - 10 °C
- Store cartridges with tip pointing downwards

### Paste Preparation

- Remove paste from fridge: Before opening the package, leave paste for at least 4 hours (depending on jar/ cartridge size) at room temperature, so that paste warms up
- Do not open jar/cartridge while paste is cold to prevent condensation
- Do not heat the paste beyond room temperature
- Before using paste jar: To obtain uniform, stable viscosity stir paste for 1 – 2 min, using stainless steel or chemically resistive plastic spatula

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