

## Sn633-5M097

*No Clean Solder Paste*

### Product Description

Singapore Asahi Solder Paste Sn633-5M097 is specially formulated for fine pitch Surface Mount application where application pitch could be as fine as 16 mils pitch. This paste uses special non-halide flux and low oxide spherical powder. This paste exhibits excellent paste deposition with no cold and hot slump problem. Hence preventing the paste from dropping down the board during preheat stage.

Characteristics:

- Excellent print consistency
- Long working stencil life
- Do not exhibit any hot or cold slump
- Exhibit good solderability or wettability on both copper and nickel substrate

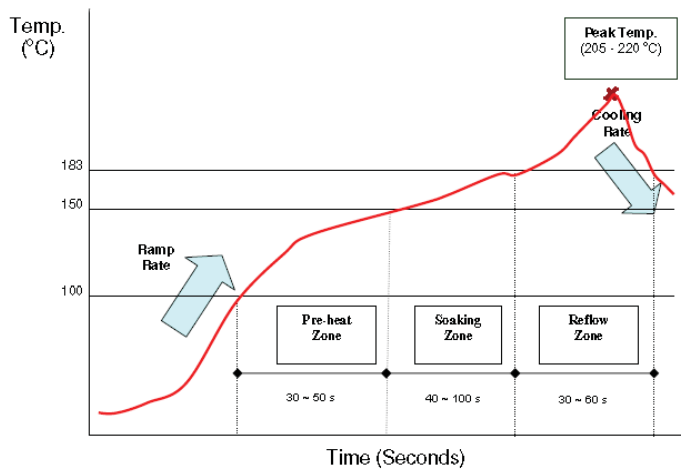
### Application

Sn633-5M097 is designed for standard stencil printing. The printing speed can be set at 25 - 100 mm/sec. Its optimum printing condition is 23 to 25 °C and humidity of 50 to 65 %RH, with at least 24 hours stencil life of continuous printing (process dependant). This paste could be used on the 0.4mm pitch pattern. Adjustment may be necessary based on specific process requirement.

### Specification

Item	Result
<b>Alloy</b>	
Alloy Composition	Sn63/Pb37
Melting Temperature	183 °C
<small>Differential Scanning Calorimetry</small>	
Powder Size	25 – 45 μm, Type III, Mesh Size -325 / +500
<small>IPC TM-650 2.2.14</small>	
<b>Paste Flux</b>	
Flux Content	10.5 +/- 1.0 wt%
<small>IPC-TM-650 2.2.20</small>	
Halide Content	Not detected
<small>JIS Z 3197 8.1.4.2.1</small>	
Water Extract Resistivity	> 1 x 10 <sup>5</sup> Ω-cm
<small>JIS Z 3197 8.1.1</small>	
Copper Mirror Test	Classified as “L”, Pass
<small>IPC-TM-650 2.3.32</small>	
Copper Corrosion Test	Pass
<small>IPC-TM-650 2.6.15</small>	
Flux Activity Classification	ROLO
<small>IPC J-STD-004</small>	
<b>Solder Paste</b>	
Viscosity	750 +/- 250 kcPs
<small>IPC-TM-650 2.4.34</small>	
<small>JIS Z 3284 Annex 6</small>	
Thixotropic Index	0.40- 0.80
<small>JIS Z 3284 Annex 6</small>	
Tackiness	> 24hrs (> 100gf)
<small>JIS Z 3284 Annex 9</small>	
Surface Insulation Resistance	> 1 x 10 <sup>8</sup> Ω, Pass
<small>(85°C, 85%RH, 168hrs)</small>	
<small>IPC-TM-650 2.6.3.3</small>	
Electromigration	Pass
<small>(85°C, 88.5%RH, 596hrs)</small>	
<small>IPC-TM-650 2.6.14.1</small>	
Slump Test	Pass
<small>JIS Z 3284 Annex 7, Annex 8</small>	
Solder Ball Test	Pass
<small>IPC-TM-650 2.4.43</small>	
<small>JIS Z 3284 Annex 11</small>	
Residue Dryness Test	Pass
<small>JIS Z 3284 Annex 12</small>	

## Recommended Reflow Profile



This profile is simply a guideline. For more advice on profiling, please contact Asahi technical support.

(\*)Note: Minimal peak temperature to be achieved but is dependent on PCB design / material and process capability & profiling in accuracy.

## Residue Removal

Residue removal is not needed as this is a no clean solder paste. For assemblies that require cleaning, call Asahi technical support.

## Storage, Handling and Shelf Life

Solder paste has to be thawed to room temperature (~25°C) prior using to avoid condensation. Paste left on the stencil should not be put back into the container together with the unused paste. It is preferable not to re-use solder paste left on the stencil after printing.

Generally the solder paste could last for 6 months from date of manufacturing, if kept under proper condition and temperature of 0 - 10 °C.

## Health and Safety

Do not handle the paste with your bare hand. Use proper tool when handling the paste. If the paste touches the skin, wash thoroughly with soap and water. For more information, please refer to Material Safety Data Sheet.

## Packaging

Packaging Type	Weight	Packaging Part
Jar	500g	E
	250g	F
Cartridge	1000g	D
Cassette	800g	I
Easipak	150g	J
	50g	H

### Solder Paste Product Order System:

Alloy Type      Powder Size      -      Series Type      Formula Type      -      Packaging Part

Example:      **Sn63 3-5M097-E**

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