

**SACB1053 5-5M097**
*No Clean Halogen Free Solder Paste*

**Product Description**

Asahi SACB1053, Sn95.5Ag1.0Cu0.5Bi3.0 solder alloy was developed to have better wettability in reflow soldering process. It is cost effective while shows comparable mechanical strength with SAC305.

SACB1053 5-5M097 solder paste exhibits long stencil life and tack time, while still delivering exceptional solderability. It possesses excellent printing characteristics to a wide variety of metallization with an anti-slump property.

**Application**

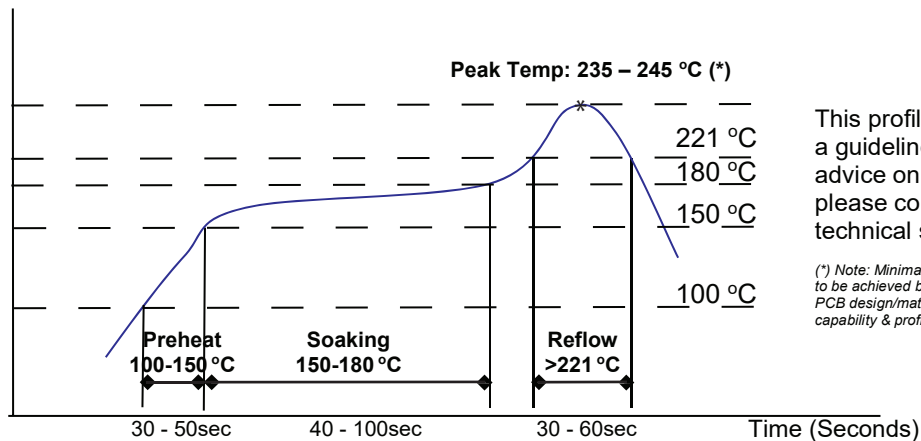
SACB1053 5-5M097 is designed for standard stencil printing. The printing speed can be set at 25 - 100 mm/sec. Its optimum printing condition is 23 to 25 °C and humidity of 50 to 65 %RH, with at least 24 hours stencil life of continuous printing (process dependant). Adjustment may be necessary based on specific process requirement.

**Specification (Preliminary)**

<b>Item</b>	<b>Result</b>
<b>Alloy</b>	
Alloy Composition	Sn95.5/Ag1.0/Cu0.5/Bi3.0
Melting Temperature	211 - 221 °C
<small>Differential Scanning Calorimetry</small>	
Powder Size	15 - 25 μm, Type V,
<small>IPC TM-650 2.2.14</small>	
<b>Paste Flux</b>	
Flux Content	12.0 ± 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>	
Halogen Content	Not detected
<small>BS EN 14582</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 (2nd day)	750 ± 250 kCpS
<small>IPC-TM-650 2.4.34</small>	
<small>JIS Z 3284 Annex 6</small>	110 - 220 Pa.s
Thixotropic Index	0.30- 0.70
<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>IPC-TM-650 2.4.35</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>	

# SACB1053 5-5M097 No Clean Solder Paste

## 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:      SACB1053 5-5 M097-E

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