SAC0307 4-5MH080

No Clean Solder Paste

RoHS compliant

Product Description

Asahi SAC0307, SnAg0.3Cu0.7 solder alloy was developed to have better wettability in reflow soldering process. This alloy is designed to be substituted for tin/lead alloys in all electronics assembly soldering operations. Some adjustment to equipment settings will be required but the resulting soldered joints will perform as well as tin/lead solder joints in most respects.

SAC0307 4-5MH080 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

SAC0307 4-5MH080 is designed for standard stencil printing. The printing speed can be set at 25 - 150 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 (*Preliminary*)

Item	Result
Alloy	
Alloy Composition	Sn/Ag0.3/Cu0.7
Melting Temperature Differential Scanning Calorimetry	217 - 227 °C
Powder Size IPC TM-650 2.2.14	20 – 38 µm, Type IV, Mesh Size -400 / +635
Paste Flux	
Flux Content IPC-TM-650 2.2.34.1	11.5 +/- 1.0 wt%
Halide Content JIS Z 3197 8.1.4.2.1	Not detected
Water Extract Resistivity JIS Z 3197 8.1.1	> 1 x 10^4 Ω-cm
Copper Mirror Test IPC-TM-650 2.3.32	Classified as “L”, Pass
Copper Corrosion Test IPC-TM-650 2.6.15	Pass
Flux Activity Classification IPC J-STD-004	ROL0
Solder Paste	
Viscosity (2nd day) IPC-TM-650 2.4.34 JIS Z 3284 Annex 6	500 ~ 1200 kcPs 150 ~ 230 Pa.s
Tackiness JIS Z 3284 Annex 9	> 24hrs (> 100gf)
Surface Insulation Resistance (85°C, 85%RH, 168hrs) IPC-TM-650 2.6.3.3	> 1 x 10^8 Ω, Pass
Electromigration (85°C, 88.5%RH, 596hrs) IPC-TM-650 2.6.14.1	Pass
Slump Test IPC-TM-650 2.4.35	Pass
Solder Ball Test IPC-TM-650 2.4.43 JIS Z 3284 Annex 11	Pass
Residue Dryness Test JIS Z 3284 Annex 12	Pass

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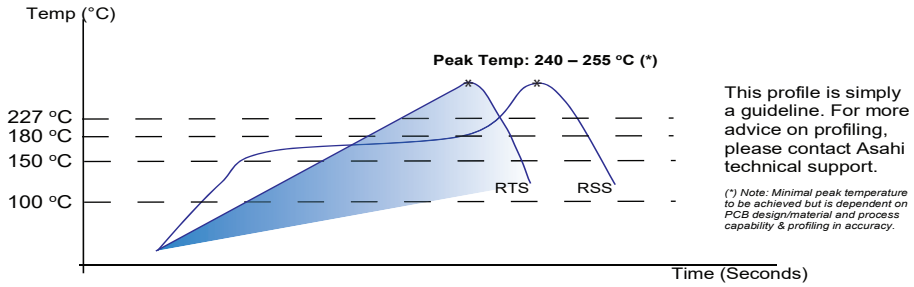
Recommended Reflow Profile



	RTS (Ramp To Spike) Profile	RSS (Ramp Soak Spike) Profile
Ramp up rate (100-150°C)	3°C/sec max	3°C/sec max
Soaking (150-180°C)	-	40-120 sec
Reflow Time (>227°C)	30-90 sec	30-90 sec
Peak Temperature	240-255°C	240-255°C
Cooling Rate	6°C/sec max	6°C/sec max

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: **SAC0307 4-5 MH080-E**

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