

Anti-tombstoning No-clean Solder Paste

SSA48-M955

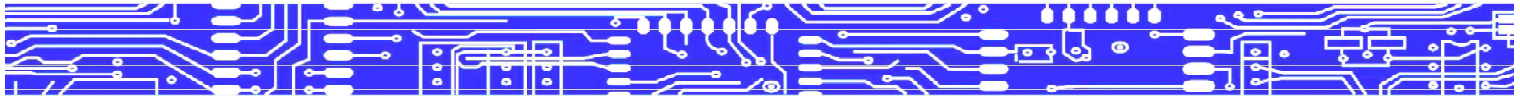
■ Feature

- 1) Ensures outstanding continual printability with fine pitch (0.5mm/20mil) and even super fine pitch (0.4mm/16mil) applications at slow to fast (20-100mm/sec.) print speed, combined with long stencil idle time.
- 2) Carefully selected thixotropic materials ensure excellent slump resistivity and significantly reduced occurrence of bridging and solder beading.
- 3) Specially developed flux system ensures both extremely high reliability and superior solder wetting.
- 4) Extremely long stencil and tack time offers a wide process window.
- 5) A small percentage of antimony (Sb) reduces the wetting tension forces and as a result, effectively drastically reduces tombstoning.

■ Specifications

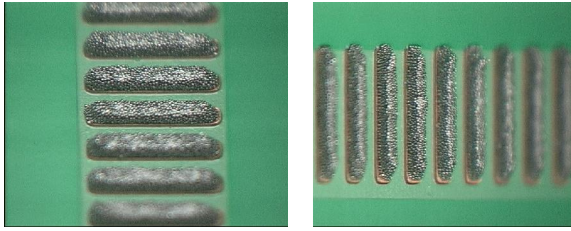
Application		Printing - Stencil	
Product		SSA48-M955	
Alloy	Composition (%)		Sn62.6, Pb36.8, Ag0.4, Sb0.2
	Shape		Spherical
	Melting point (°C)		183, 179 ? 190
	Particle size (µm)		20 - 45
Flux	Halide content (%)		0.0
	Surface insulation resistance *1	Initial value (Ω)	$> 1 \times 10^{12}$
		After humidification (Ω)	$> 1 \times 10^{11}$
	Aqueous solution resistivity*2 (Ω cm)		$> 5 \times 10^4$
Flux type		ROLO	
Product	Flux content (%)		10
	Viscosity*3 (Pa.S)		200
	Copper plate corrosion*4		Passed
	Solder spread factor (%)		90
	Tack time		> 36 hours
	Shelf life (below 10°C)		6 months

1. SIR40°C×90%RH×96Hr
2. Aqueous solution resistivity..... In accordance with MIL specifications.
3. Viscosity.....Malcom spiral type viscometer, PCU-2 at 25°C 10rpm
4. Copper plate corrosion..... In accordance with JIS.



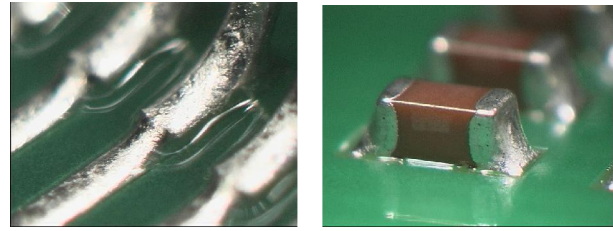
Printability

(Continual printing at 50mm/sec., w/out cleaning)



0.4mm pitch (30th print)

Wetting

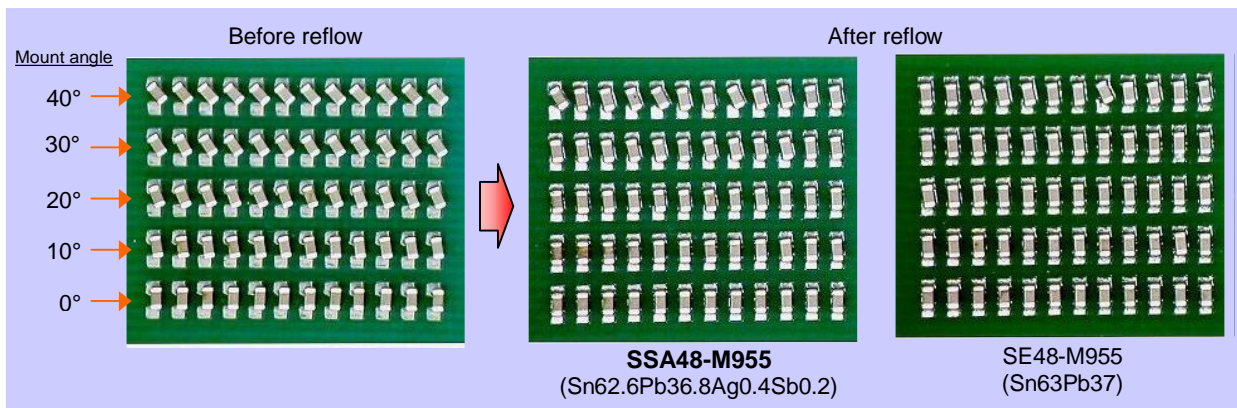


NiFe QFP lead
(SnPb plating)

1608 resistor

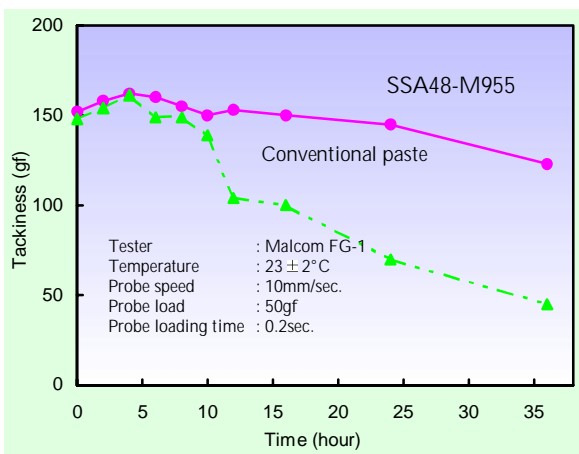
Self-alignment

To see the strength of wetting tension, which could cause tombstoning, the components, were mounted at angles of 0°, 10°, 20°, 30°, and 40°.

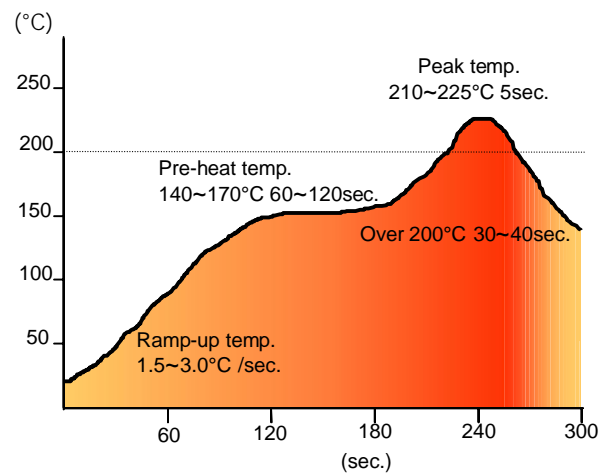


Result : SSA48-M955 indicates less wetting tension than Sn63Pb37 solder paste.

Tackiness



Recommended reflow profile



COMPANY LIMITED

32-1, Senju Asahi-cho, Adachi-ku, Tokyo 120-0026
Tel : (03) 5244-1521 Fax : (03) 5244-1527 www.ko-ki.co.jp