

Low Void No-clean Solder Paste

SE48-M955LV & SS48-M955LV

■ Feature

- 1) Employment of rigidly classified 20~45 micron solder powder ensures outstanding continual printability with fine pitch (0.5mm/20mil) and even super fine pitch (0.4mm/16mil) applications and long stencil idle time.
- 2) Carefully selected flux chemistry ensures low voids formation.
- 3) Extremely long stencil idle time and tack time, offering wide process window.
- 4) Low color flux residue offers superior cosmetic appearance.
- 5) Conforms to Bellcore tests (Copper mirror, Halides, Surface insulation resistance, Electromigration) GR-78-CORE, Issue 1.

■ Specifications

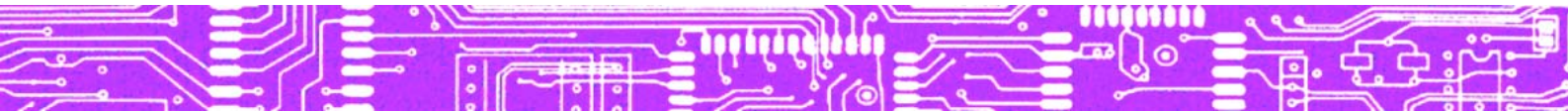
Application		Printing - Stencil	
Products		SE48-M955LV (SS48-M955LV)	
Alloy	Composition (%)		Sn63, Pb37 (Sn62, Pb36,Ag2)
	Shape		Spherical
	Particle size (μm)		20 - 45
Flux	Halide content (%)		0.0
	Surface insulator resistance * ¹	Initial value (Ω)	$> 1 \times 10^{12}$
		After humidification (Ω)	$> 1 \times 10^{11}$
	Aqueous solution resistivity* ² (Ω cm)		$> 5 \times 10^4$
Flux type		ROL0	
Product	Flux content (%)		9.2
	Viscosity* ³ (Ps)		1,900
	Copper plate corrosion* ⁴		Passed
	Solder spread factor (%)		90
	Tack time		> 24 hours
	Shelf life (below 10°C)		6 months
	Anti-tombstone option (Sn62.6, Pb36.8, Ag0.4, Sb0.2)		Available (<i>SSA48-M955LV</i>)

1. SIR40°C×90%RH×96Hr

2. Aqueous solution resistivity.....In accordance with MIL specifications.

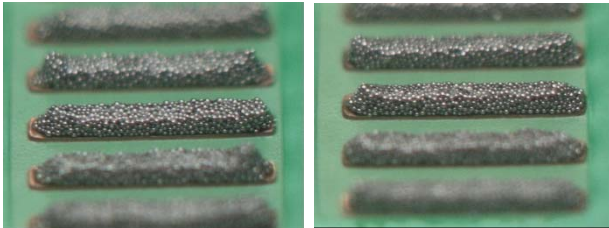
3. Viscosity.....Malcom spiral type viscometer, PCU-205 at 25°C 10rpm

4. Copper plate corrosion.....In accordance with JIS.



■ **Printability – SS48-M955LV**

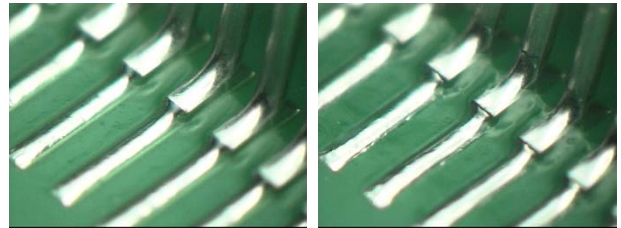
(Continual printing at 50mm/sec. stencil 150μm laser cut)



Parallel Vertical
0.4mm pitch (30th print)

■ **Solder wetting**

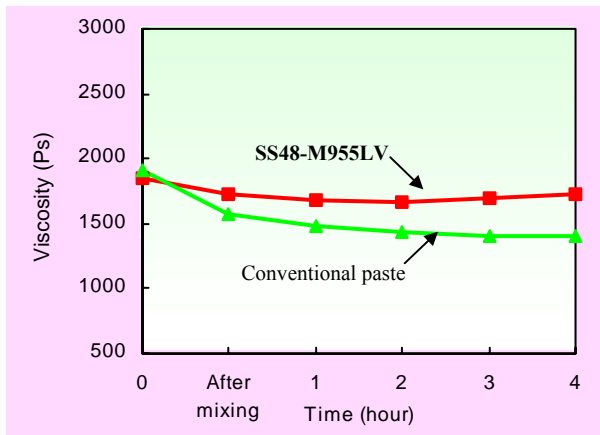
(QFP 0.65mm pitch, Fe/Ni base alloy with Sn/Pb plated)



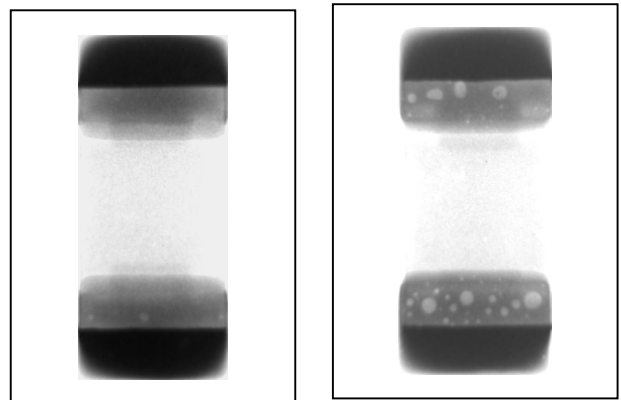
SS48-M955LV Conventional solder paste

■ **Viscosity variation in continual print**

(Squeegee speed : 30mm/sec., print stroke : 300mm)

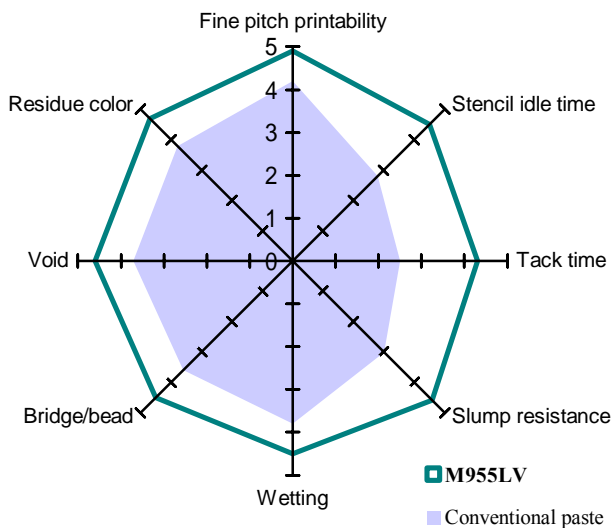


■ **Voiding** (2125 Sn plated chip resistor; reflowed in air)

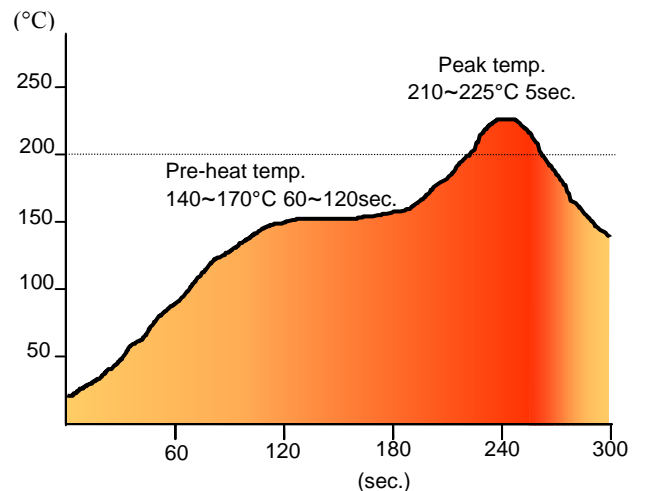


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■ **Features comparison** (0: Bad → 5: Good)



■ **Recommended reflow profile**



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