

# Hi-performance No-clean Solder Paste

## SE48-M955 & SS48-M955

### ■ 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 rosins and activators ensure powerful solder wetting.
- 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		<b>SE48-M955 (SS48-M955)</b>	
Alloy	Composition (%)	Sn63, Pb37 (Sn62, Pb36, Ag2)	
	Shape	Spherical	
	Particle size (μm)	20 - 45	
Flux	Halide content (%)		0.0
	Surface insulation resistance * <sup>1</sup>	Initial value (Ω)	$> 1 \times 10^{12}$
		After humidification (Ω)	$> 1 \times 10^{11}$
	Aqueous solution resistivity* <sup>2</sup> (Ω cm)		$> 5 \times 10^4$
Flux type		ROLO	
Product	Flux content (%)		10
	Viscosity* <sup>3</sup> (Ps)		2,000
	Copper plate corrosion* <sup>4</sup>		Passed
	Solder spread factor (%)		90
	Tack time		> 36 hours
	Shelf life (below 10°C)		6 months
	Anti-tombstone option (Sn62.6, Pb36.8, Ag2, Sb0.2)		Available ( <i>SSA48-M955</i> )

1. SIR .....40°C×90%RH×96Hr

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

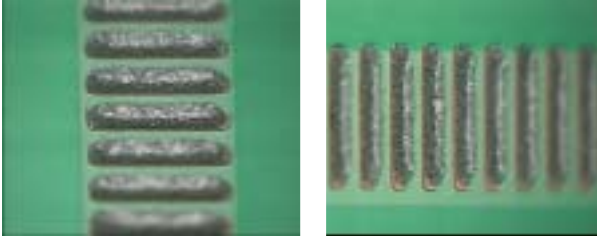
3. Viscosity..... Malcom spiral type viscometer, PCU-205 at 25°C 10rpm

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



### ■ Printability – SE48-M955

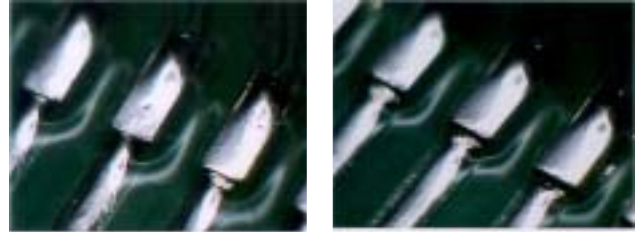
(Continual printing at 50mm/sec. stencil 150μm laser cut)



0.4mm pitch (30th print)

### ■ Solder wetting

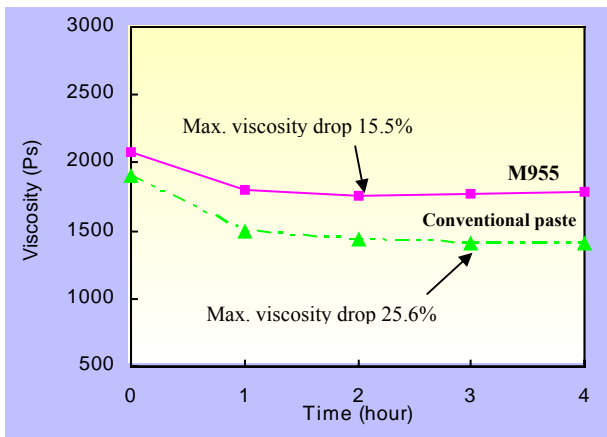
(QFP 0.65mm pitch, Fe/Ni base alloy with Sn/Pb plated)



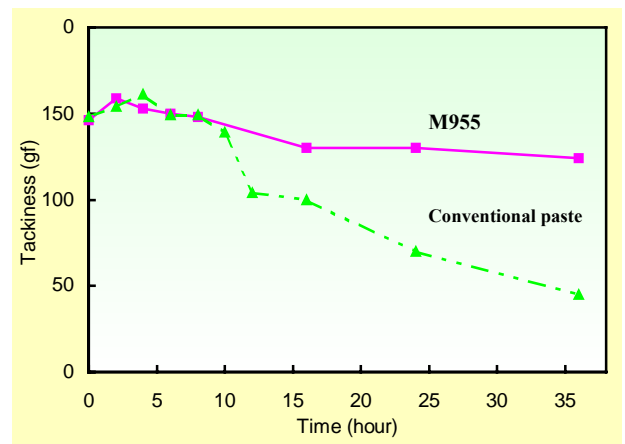
SE48-M955

Conventional solder paste

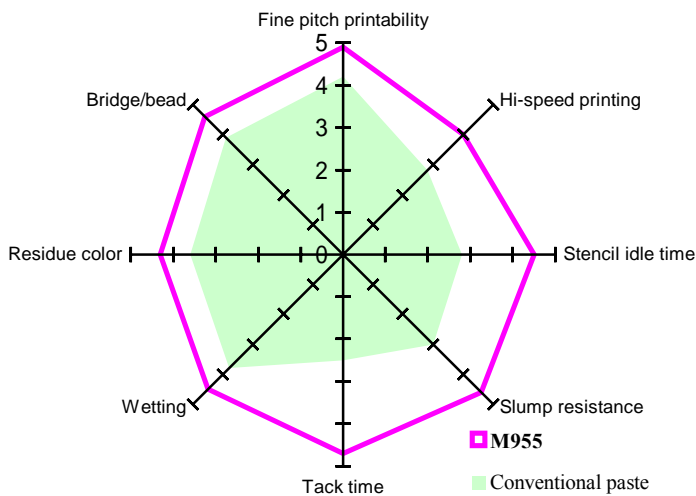
### ■ Viscosity variation in continual print



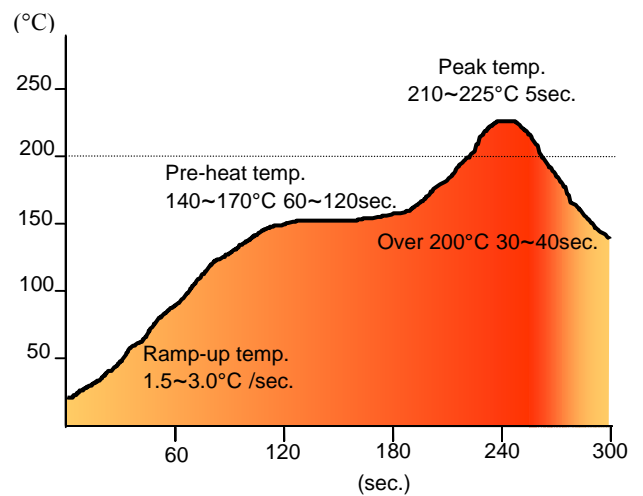
### ■ Tackiness



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



### ■ Recommended reflow profile



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