

Hi-performance No-clean Solder Paste

SE58-M405L-2 & SS58-M405L-2

■ Feature

- 1) Employment of rigidly classified 20~38 micron solder powder ensures outstanding continual printability with super fine pitch (0.4mm/16mil) and CSP (>0.25mm dia.) applications and long stencil idle time.
- 2) Designed for normal (20~40mm/sec) to extremely fast (300mm/sec.) printing applications
- 3) Carefully selected flux chemistry ensures low voids formation.
- 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

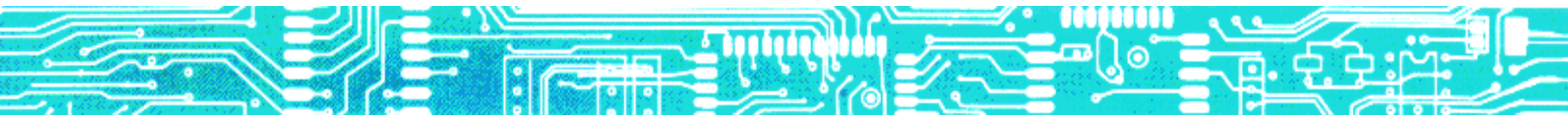
Application		Printing - Stencil	
Products		SE58-M405L-2 (SS58-M405L-2)	
Alloy	Composition (%)	Sn63, Pb37 (Sn62, Pb36, Ag2)	
	Shape	Spherical	
	Particle size (μm)	20 - 38	
Flux	Halide content (%)		0.0
	Surface insulation resistance * ¹	Initial value (Ω)	$> 1 \times 10^{12}$
		After humidification (Ω)	$> 1 \times 10^{11}$
	Aqueous solution resistivity* ² (Ω cm)		$> 5 \times 10^4$
Flux type		ROLO	
Product	Flux content (%)		10
	Viscosity* ³ (Ps)		1,550
	Copper plate corrosion* ⁴		Passed
	Solder spread factor (%)		90
	Tack time		> 36 hours
	Shelf life (below 10°C)		6 months
	Anti-tombstone option (Sn62.6, Pb36.8, Ag0.4, Sb0.2)		Available (<i>SSA58-M405L-2</i>)

1. SIR40°C×90%RH×96Hr

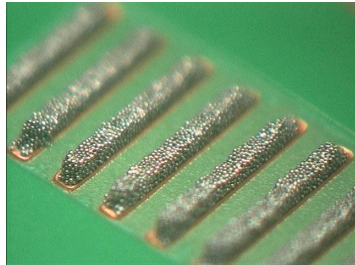
2. Aqueous solution resistivity.....In accordance with MIL specifications.

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

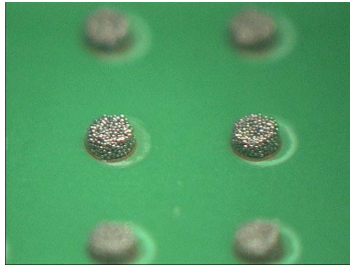
4. Copper plate corrosion.....In accordance with JIS.



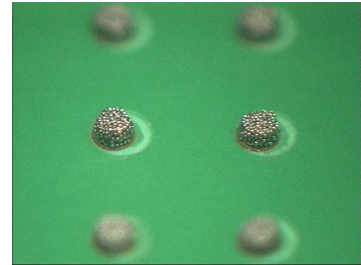
■ **Printability** (Print speed at 120mm/sec., stencil thickness 130μm, laser cut)



0.4mm pitch



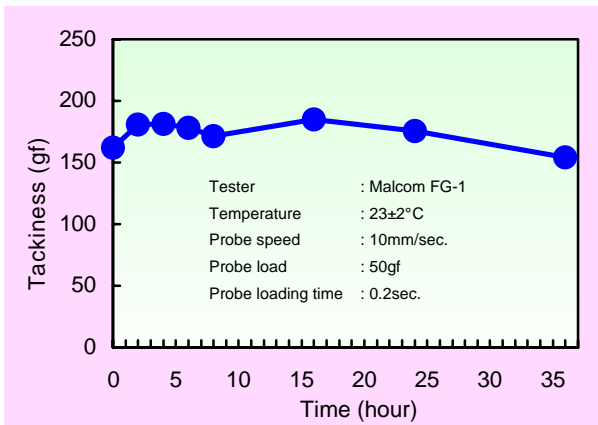
0.35mm dia.



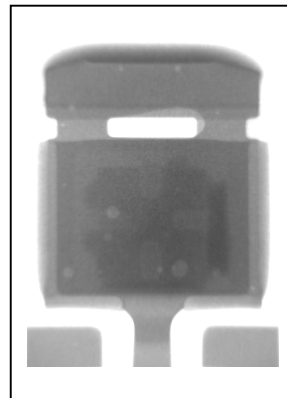
0.3mm dia.

Continual print result – at 20th print without stencil cleaning

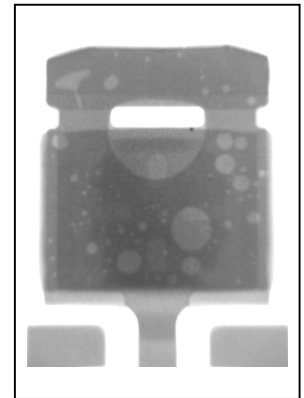
■ **Tackiness**



■ **Voiding** (Power transistor; reflowed in air)

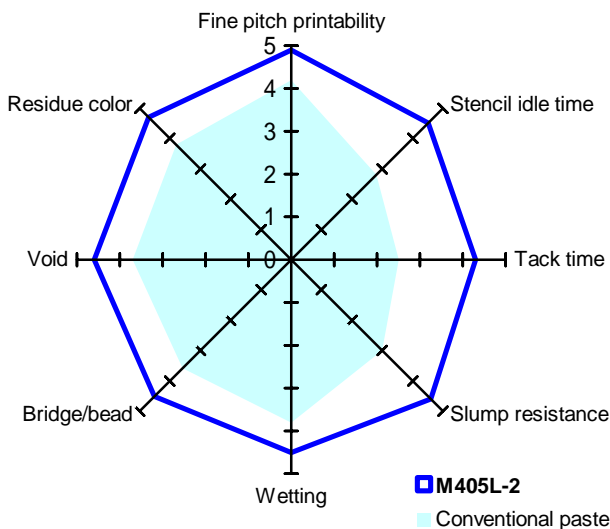


SS58-M405L-2



Conventional solder paste

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



■ **Recommended reflow profile**

