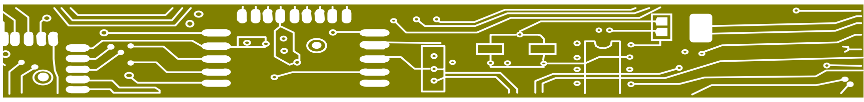


Pin-Testable Lead Free Solder Paste

S3X58-M650-*3*

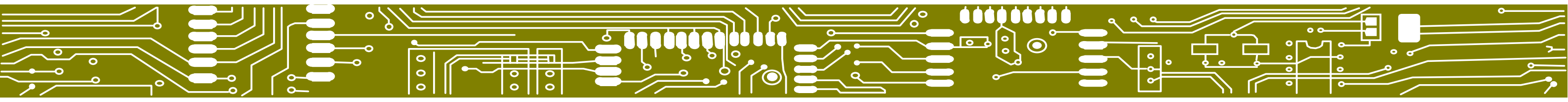
■ Features

1) Solder alloy composition is **Sn3Ag0.5Cu**.
2) Specially developed flux system ensures **EXCELLENT** and **CONSISTENT ICT TESTABILITY**.
3) Carefully selected flux chemistry ensures extremely **LOW VOID** formation.
4) **PERFECT MELTING** and **WETTING** at super fine pitch (<0.4mm pitch) and micro components (<0.35mm dia. CSP, 0603 chip).
5) Low color and crack free flux residues offer **SUPERIOR COSMETIC** appearance.

■ Specifications

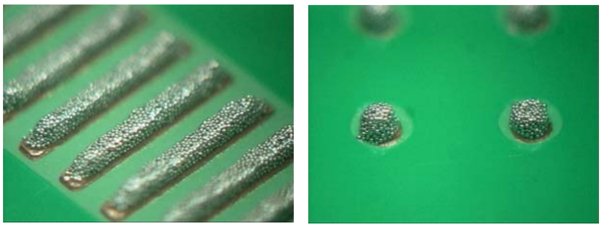
Application			Printing - Stencil	
Product			**S3X58-M650-*3***	**S3X58-M650H-*3***
Alloy	Composition (%)		Sn96.5, Ag3.0, Cu0.5	
	Melting point (°C)		217 - 218	
	Shape		Spherical	
	Particle size (µm)		20 - 38	
Flux	Halide content (%)		0.0	
	Surface insulation resistance *[1]	Initial value (Ω)	$> 1 \times 10^{13}$	
		After humidification (Ω)	$> 1 \times 10^{12}$	
	Aqueous solution resistivity*[2] (Ω cm)		$> 5 \times 10^{4}$	
	Flux type		ROL0	
Product	Flux content (%)		12	11.7
	Viscosity*[3] (Ps.S)		170	200
	Copper plate corrosion*[4]		Passed	
	Solder spread factor (%)		> 85	
	Tack time		> 48 hours	
	Shelf life (below 10°C)		6 months	
	Other alloy options		**TS58-** : SnAg3.5 **SX58-** : SnAg3.5Cu0.7 **S38X58-**: SnAg3.8Cu0.7 **SXA58-** : SnAg3.5Cu0.5Sb0.2	

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

(Continual printing at 50mm/sec. stencil 130 μ m laser cut)

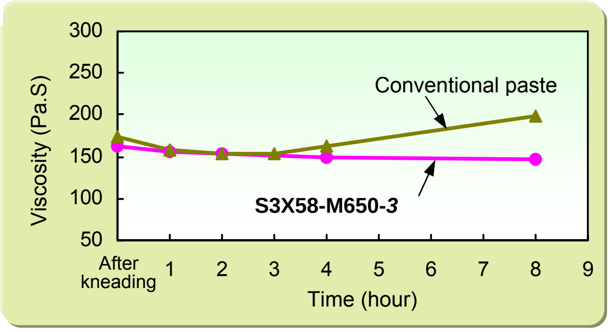


0.4mm pitch
(10th print; parallel)

0.30 mm diameter
(10th print; CSP pattern)

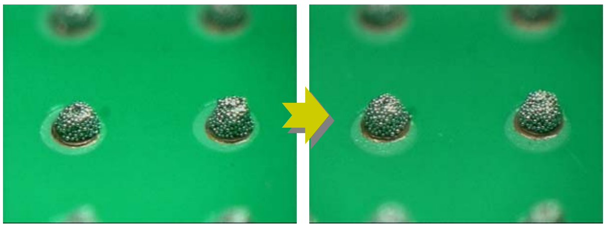
■ Viscosity variation in continual print

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



■ Intermittent printability

(0.3mm diameter CSP pattern)

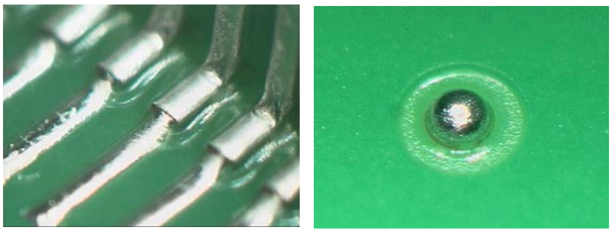


Initial print

1st print after 60 min.

■ Solder wetting

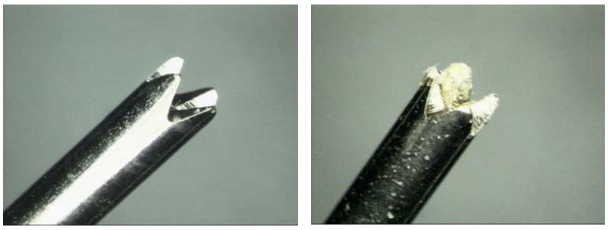
(Cu base alloy with Sn plated)



0.65mm pitch QFP

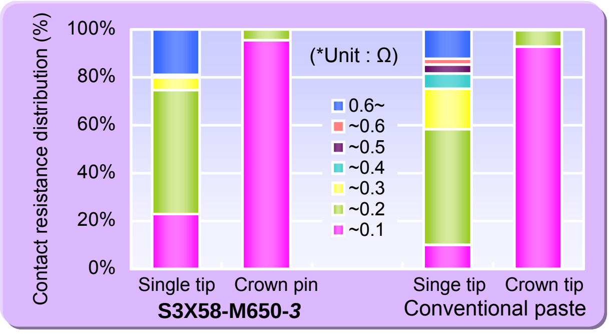
0.3mm diameter

■ Pin-testability (after 1,000 strikes)

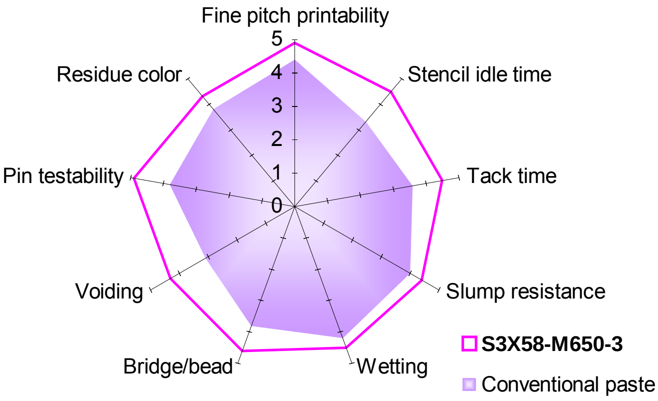


S3X58-M650-3

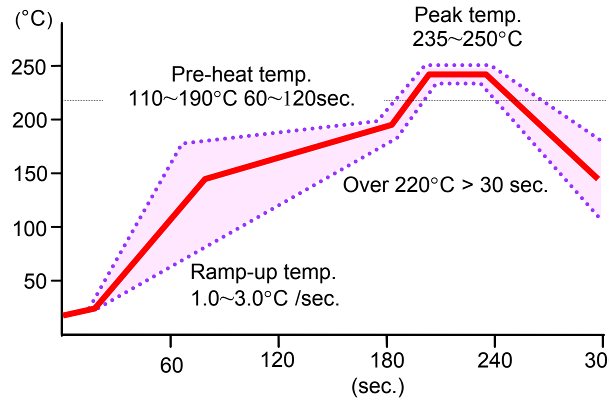
Conventional paste



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



■ Recommended reflow profile



*Specifications are subject to change.

KOKI COMPANY LIMITED

32-1, Senju Asahi-cho, Adachi-ku, Tokyo 120-0026
Tel : (03) 5244-1521　Fax : (03) 5244-1525　www.ko-ki.co.jp

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