KOKI
CHALLENGING NEW TECHNOLOGIES

Solder paste for super fine pitch and micro components

eco+PLUS Lead Free SOLUTIONS you can TRUST

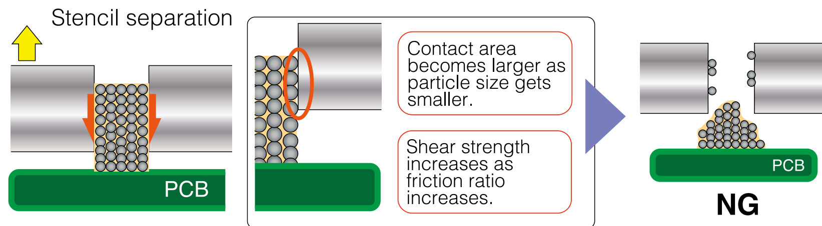
S3X70-M500C Sn 3.0Ag 0.5Cu

Superior wetting with 01005 chip even in air reflow

Printable at super fine pitch pattern

Disadvantage of conventional fine particle solder paste is the increased surface contact with the stencil aperture walls as Fig. 1.

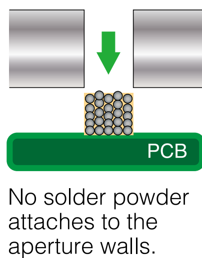
■ Figure 1. Stencil separation



Smooth solder paste separation

S3X70-M500C can be printed even in high aspect ratio apertures. The unique flux formulation reduces shear strength during stencil separation.

■ Lubricating effect

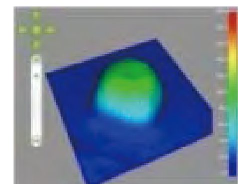


No solder powder attaches to the aperture walls.

■ Figure 2. Print definition (200μmφ)

Squeegee: Metal blade Print pressure: 50N Squeegee speed: 40mm/sec.
Stencil thickness: 100μm Stencil separation speed: 10mm/sec.

10th print after 200 strokes

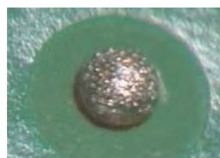


3D image

Sufficient wetting with air reflow

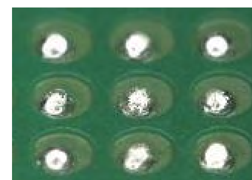
Although solder paste with fine particles has a larger total surface area for oxide to form, S3X70-M500C delivers perfect wetting with air reflow by improving the flux heat durability.

e.g. graped solder

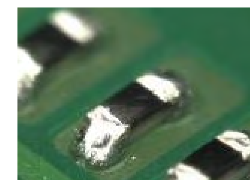


■ Figure 3. Wettability

Board: Glass-epoxy FR-4 Surface treatment: Au
Stencil thickness:100μm Aperture ratio:100% Reflow atmosphere: Air



200μmφ



01005 chip

No graped solder is observed at 01005 chip and 0.2mm dia. CSP with air reflow.

Product specifications

Product name	S3X70-M500C	S3X70-M500D
Alloy composition (%)	Sn 3.0Ag 0.5Cu	
Melting point (°C)	217-219	
Particle size (µm)	10-25	
Viscosity (Pa.s)	200	100
Flux content (%)	11.5	14.0
Halide content (%)	0	
Flux type	ROL0	
Application	Printing	Dispensing

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