SN100C® Series High Reliability Lead-Free Solder

for Wave Soldering SN100C(Sn-Cu-Ni+Ge)

SN100C is being used in thousands of wave soldering machines around the world and has proved its reliability in products exposed to the most severe service environments.

SN100C enables bridge-free wave soldering.

Features

- The trace addition of Ni means fewer shorts and no shrinkage defects.
- Ni-stabilized intermetallic layer inhibits copper erosion.
- Reliable in harsh environments.
- High ductility ensure long service life of joints subjected to cyclic strain.
- SN100C is formulated for minimal generation of dross.

High Temperature Dipping and Tinning Solder SN100C3•SN100C4

High temperature dip soldering and tinning of copper wire, polyurethane coated wire and component terminations. For use at temperature up to 400℃.

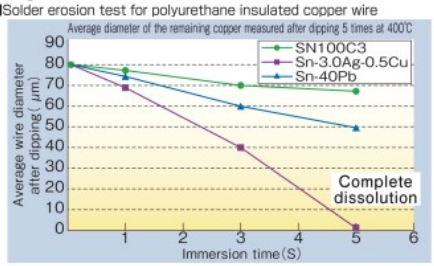
Features

- SN100C3 and SN100C4 make it possible to carry out dip soldering and tinning operations with minimum copper erosion.

Reduction of Copper Erosion

The diameter of copper wire (originally 80μm) barely changed after immersion in SN100C3.

■Solder erosion test for polyurethane insulated copper wire



for Hot Air Solder Leveling (HASL) SN100CL(Sn-Cu-Ni+Ge)

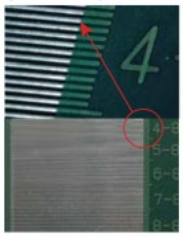
Protects PCB solderability to ensure excellent wetting during soldering.

Features

- Excellent fluidity.
- Bridge-free coating of fine pitch circuitry.
- Bright smooth and uniform coating.
- Low copper erosion.
- Formation of stable intermetallic layer.

Excellent Fluidity

■Good drainage ensures no bridges even on fine pitch track patterns



0.025mm pitch

High Reliability Lead-Free Solder Preforms SN100C(Sn-Cu-Ni+Ge)

Suitable for micro-soldering

Features

- The finely dispersed microstructure of SN100C makes it possible to roll very thin foil without defects.

The eutectic behavior of SN100C (Sn-0.7Cu-0.05Ni+Ge) lead-free preforms means good melting characteristics during reflow. The superior properties of SN100C with low intermetallic growth provide high reliability and flexibility. Please contact us for more information on available sizes of ribbons and washers and alloy options.

Foil Microstructure

■Solder Foil (1μm thickness) Element Mapping of Cross-sections

SN100C		Sn	Cu	Ni
	(Cu,Ni)$_6$Sn$_5$ compounds are finely dispersed.			
Sn-3.0Ag-0.5Cu	Ag_3Sn	Sn	Ag	Cu
	The many white areas in the foil are crystals of Ag_3Sn intermetallic.			

eFlux Soldering Flux

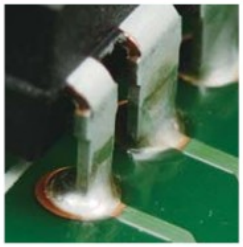
Soldering Flux

Rosin Based Flux for Wave Soldering NS-F850

NS-F850 ensures excellent wetting of all PCB and component substrates to deliver maximum through hole fill and facilitates the solder drainage that ensures minimum bridges and icicles.

It is the ideal flux for lead-free wave soldering.

Excellent Through-Hole Filling for Maximum Reliability

NS-F850	Previous Product
	

【Test Conditions】
Wave Soldering
・Conveyor Speed: 1.0m/min.
・Solder Temperature : 255℃
・Contact Time : 6sec.

Completely Halogen-Free Flux NS-F900

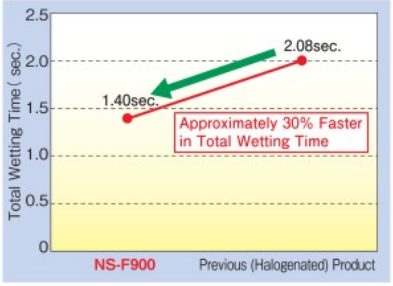
ハロゲンフリー HALOGEN FREE

NS-F900 is a robust halogen-free flux that ensures excellent wetting even on oxidized copper.

NS-F900 is completely halogen-free containing no halogens (F, Cl, Br or I) for high reliability wave soldering.

Excellent Wetting (even on oxidized copper)

■Approximately 30% Faster in Total Wetting Time



【Test Conditions】
Wetting Balance Test
・Test Pieces : Oxidized Cu wire 0.6mm diameter
・Alloy : SN100C
・Solder Temperature : 255℃
・Immersion Speed : 2mm/sec.
・Immersion Depth : 1mm
・Immersion Time : 15sec.
・Withdrawal Speed : 2mm/sec.