



Lead-Free Solder Paste

PF606-PW

Rev. 2017/03/01 Ver. 03-01

BASIC OVERVIEW



SnAg3.0Cu0.5X Solder Paste
Lead-Free
Water Soluble
Zero Halogen

APPLICATIONS

Water Soluble Lead-Free SMD Solder Paste
Wide Range of Applications and PCB designs

FEATURES

Appearance	Gray paste w/o visible foreign and clusters	
Alloy Composition	Sn/Ag3.0/Cu0.5/x	JIS-Z-3282
Melting Point	217~219 °C	
Particle Size	(Type 3) +45μm < 1% , - 20μm < 10% (Type 4) +38μm < 1% , - 20μm < 10% (Type 5) +25μm < 1% , - 15μm < 10%	J-STD-005
Powder Shape	Spherical	
Flux Content	11.0 ± 1.0 wt%	JIS-Z-3197, 8.1.2
Viscosity	180 ± 30 Pa.s (25±1°C, 10rpm, Malcom)	JIS-Z-3284 Annex 6
Flux Type	ORH0	J-STD-004

Alloy Detail Composition

(Sn)	(Ag)	(Cu)	(Ni)	(Ge)	(Zn)	(Al)	(Sb)	(Fe)	(As)	(Bi)	(Cd)	(Au)	(In)	(Pb)
REM.	2.8~ 3.2	0.3~ 0.7	0~ 0.01	0~ 0.01	0.001 MAX	0.001 MAX	0.05 MAX	0.02 MAX	0.03 MAX	0.10 MAX	0.002 MAX	0.05 MAX	0.10 MAX	0.05 MAX

Patent No.: Japanese Patent No. 3296289, U.S Patent No. 6179935B1, Germany Patent No.19816671C2

(wt%)

Scan Code for Solder
Paste Documents





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PERFORMANCE & RELIABILITY

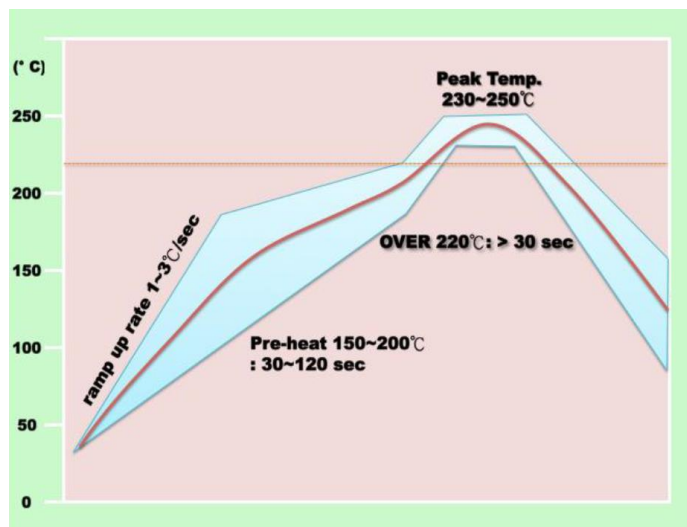
Copper Plate Corrosion Test	Pass	IPC-TM-650, 2.6.15
Spreading Test	> 70%	JIS-Z-3197, 8.3.1.1
Copper Mirror Test	Pass	IPC-TM-650, 2.3.32
Viscosity Test (25°C, 10 rpm)	180 ± 30 Pa.s	JIS-Z-3284, Annex 6
Tackiness Test (gf)	> 130 (8hr)	JIS-Z-3284, Annex 9

S.I.R. Test ▲	Pass	IPC-TM-650, 2.6.3.3
Electro Migration Test ◆	Pass	IPC-TM-650, 2.6.14.1

▲ Test Conditions : 85 °C, 85% RH for 168hrs

◆ Test Conditions: 65°C, 88.5% RH for 596 hrs

RECOMMENDED REFLOW PROFILE



Ramp Up Rate (30-150°C): 1.0-3.0 °C/sec

Pre-heating Time (150-200°C): 30-120 sec

Time Period Above 220°C: >30 sec

Ramp Up During Reflow: 1.0-2.0 °C/sec

Peak Temperature: 230-250 °C

Ramp Down Cooling Rate: 1.0-6.0 °C/sec

Important Note: For solder paste with powder size Type 4.5 or smaller, nitrogen atmosphere is strongly recommended for best soldering result.

Note: The recommended reflow profile is provided as a guideline. Optimal profile may differ due to oven type, assembly layout or other process variables.



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STORAGE & HANDLING:

- Refrigerate the solder paste at 0-10°C. Shelf life is 6 months from production date (sealed package).
- Keep away from direct sunlight.
- Allow the paste to reach defined printing temperature (room temperature) for 3-4 hrs. Do not heat up the solder paste rapidly.
- For jars packaging, mix the solder paste before use for 1-3 mins by plastic spatula.
- It is recommended to finish fresh paste within 24 hrs. Do not store used paste and fresh paste in the same jar.
- If printing process was interrupted for more than 1 hour, remove the remained paste from stencil and seal in the jar.
- Recommended printing environment is 22-28°C and RH 30-60%.
- The residue is easily cleaned by 60±5°C D.I. water with minimum pressure of 60psi, and suggested to be done within 24hrs. These parameters may be adjusted to accommodate various board geometries and the efficiency of the cleaning machine.

Note: For more information, please refer to solder paste application guideline sheet

HOW TO ORDER

PF606 – PW – T3 – 500

Solder Alloy
PF606 = SnAg3.0Cu0.5

Flux
PW = Water
Soluble

Particle Size
T3 = 20-45µm
T4 = 20-38µm
T5 = 15-25µm

Weight / Packaging
30 = syringe 30g
100 = syringe 100g
150 = syringe 150g
250 = plastic jar 250g
500 = plastic jar 500g
600 = small cartridge 600g
1200 = large cartridge 1200g



CONTACTS

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