Lead-Free Solder Paste

PF606-RT35

Rev. 2017/09/17 Ver. 01-01

BASIC OVERVIEW

SnAg3.0Cu0.5X Solder Paste
Lead-Free
No Clean
Halogen-Free
Storable at room temperature

APPLICATIONS

Lead-Free SMD Solder Paste
Excellent Solderability and ICT Testability

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	11.5 ± 1.0 wt%	JIS-Z-3197, 8.1.2
Viscosity	170 ± 30 Pa.s (25±1°C, 10rpm, Malcom)	JIS-Z-3284 Annex 6
Flux Type	ROL0	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

www.nevo-solder.com

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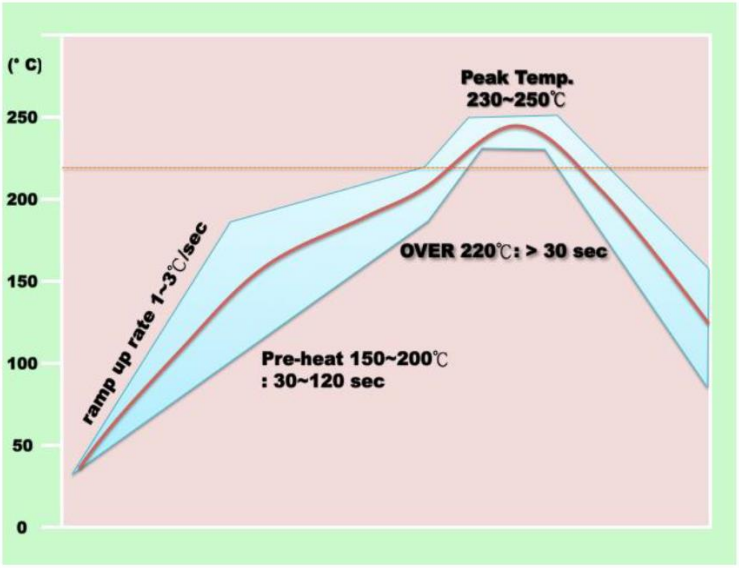
PERFORMANCE & RELIABILITY

Copper Plate Corrosion Test	Pass	JIS-Z-3197, 8.4.1
Spreading Test	> 70%	JIS-Z-3197, 8.3.1.1
Halogen Content Test	ROL0	BS EN14582
Copper Mirror Test	Pass	IPC-TM-650, 2.3.32
Viscosity Test (25°C,10 rpm)	170 ± 30 Pa.s	JIS-Z-3284. Annex 6
Tackiness Test (gf)	> 130 (8hr)	JIS-Z-3284. Annex 9
Slump Test	Pass	JIS-Z-3284. Annex 7,8
Solder Ball Test	Pass	JIS-Z-3284. Annex 11

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: **1.0-3.0 °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:

- Solder paste can be stored at up to 35°C. Shelf life is 6 months from production date (sealed package). Storing at 0-10°C helps prolong shelf life.
- Keep away from direct sunlight.
- Unless the solder paste is stored at room temperature allow the paste to reach ambient temperature (22-28°C) for at least 2 hrs. Do not heat up and cool down the paste abruptly.
- Well mix the solder paste before use for 1-3 mins by plastic spatula. Mixing time depends on tool type.
- At first, add 2/3 of jar of solder paste onto the stencil. Do not add more than 1 jar.
- Add a little amount of paste at a time on the stencil according to printing speed.
- It is recommended to finish fresh paste within 24 hrs. Do not store used paste and fresh paste in the same jar.
- After printing it is suggested to place components to be mounted on the circuit board and reflow within 4-6hrs.
- If printing process was interrupted for more than 1 hour, remove the paste from stencil and seal in a jar.
- Recommended printing environment is 22-28°C and RH 30-60%.
- To clean up printed circuit boards, it is suggested to use ethanol or isopropanol

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

HOW TO ORDER

PF606 – RT35 – T3 – 500

Solder Alloy	Flux	Particle Size	Weight / Packaging
PF606 = SnAg3.0Cu0.5	RT = Room Temp Storage	T3 = 20-45µm	30 = syringe 30g
		T4 = 20-38µm	100 = syringe 100g
		T5 = 15-25µm	150 = syringe 150g
			250 = plastic jar 250g
			500 = plastic jar 500g
			600 = small cartridge 600g
			1200 = large cartridge 1200g

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