



# Lead-Free Solder Paste

## PF606-P214L

Rev. 2017/06/30 Ver. 02-01

### BASIC OVERVIEW



SnAg3.0Cu0.5X Solder Paste  
Halide Free  
No Clean  
Low Voiding

### APPLICATIONS

Universal 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%	J-STD-005
	(Type 4)	+38μm < 1%	, - 20μm < 10%	
	(Type 5)	+25μm < 1%	, - 15μm < 10%	
Powder Shape	Spherical			
Flux Content	13% ± 1.0 wt%			JIS-Z-3197, 8.1.2
Viscosity	100 ± 30 Pa.s (25±1°C, 10rpm, Malcom)			JIS-Z-3284 Annex 6
Flux Type	ROLO			J-STD-004A

### 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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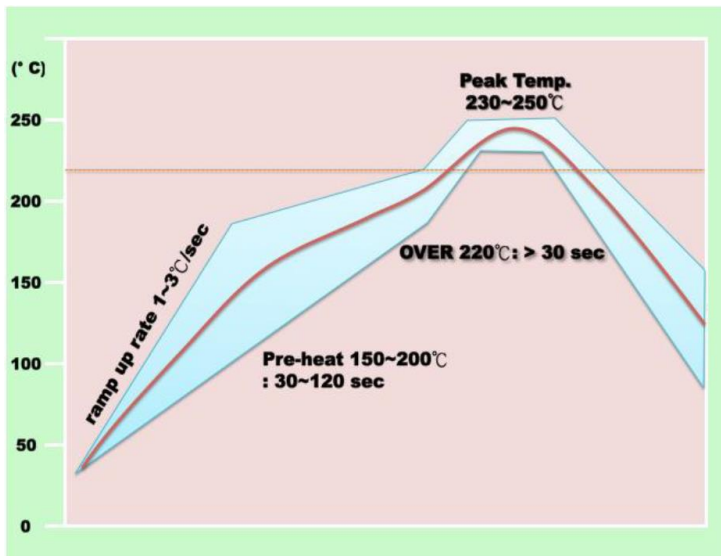
### PERFORMANCE & RELIABILITY

Copper Plate Corrosion Test	Pass	JIS-Z-3197, 8.4.1
Spreading Test	> 70%	JIS-Z-3197, 8.3.1.1
Halogen Content Test	ROLO	BS EN14582
Copper Mirror Test	Pass	IPC-TM-650, 2.3.32
Viscosity Test (25°C, 10 rpm)	100 ± 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

Peak Temperature: 230-250 °C

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

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 helps prolong shelf life. Normal shelf life is 6 months from production date (sealed jars).
- Keep away of direct sunlight.
- Allow the paste to reach ambient temperature 22-28°C for 3-4 hrs. Do not heat to raise temperature abruptly.
- It is recommended to keep the environment at 22-28°C and RH 30-60% .
- It is recommended to finish fresh paste within 24 hrs.
- Before setup, continuously dispense until the paste has filled the needle insides and paste is flowing freely.
- Time/pressure dispensers should be set up with manufacturer's guidelines.
- After dispensing, it is suggested to place components to be mounted on the PCB and reflow within 4~6 hrs.
- 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 – P214L – T3 – 500

Solder Alloy	Flux	Particle Size	Weight / Packaging
PF606 = SnAg3.0Cu0.5	P214L = ROLO	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



### CONTACTS

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