

No-clean Lead-Free ,Halide-Free Solder Paste

Model: PF623-P214

Rev. 2013/10/02 Ver. 01-00

— Specification —

Item	Specification	Standard
Appearance	Gray paste w/o visible foreign and clusters	
Alloy composition	Sn/Sb5.0	JIS-Z-3282
Melting Point	238~241 °C	
Particle Size	(Type 3) +45μm < 1% , -20μm < 10% (Type 4) +38μm < 1% , -20μm < 10%	IPC-TM-650, 2.2.14
Powder Shape	Spherical	
Flux Content	11.5 ± 1.0wt%	JIS-Z-3197, 8.1.2
Halide Content	0.0 wt% (in flux)	J-STD-004A
Viscosity	170 ± 30 Pa · s (25±1 °C , 10rpm, Malcom)	JIS-Z-3284, Annex 6
Flux Type	ROL0	J-STD-004A

— Test Content —

Test Item	Test Result	Test Method
Copper Plate Corrosion Test	Pass	JIS-Z-3197, 8.4.1
Spreading Test	> 70%	JIS-Z-3197, 8.3.1.1
Ion Chromatography Test	0.0 wt%	IPC-TM-650 Method 2.3.28.1
Copper Mirror Test	Pass	IPC-TM-650, 2.3.32
Viscosity Test(25°C,10rpm)	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

— Reliability Test —

S.I.R. Test ▲	> 1×10 ⁹ Ω, Pass	IPC-TM-650, 2.6.3.3
Electro Migration Test ◆	Pass	IPC-TM-650, 2.6.14.1

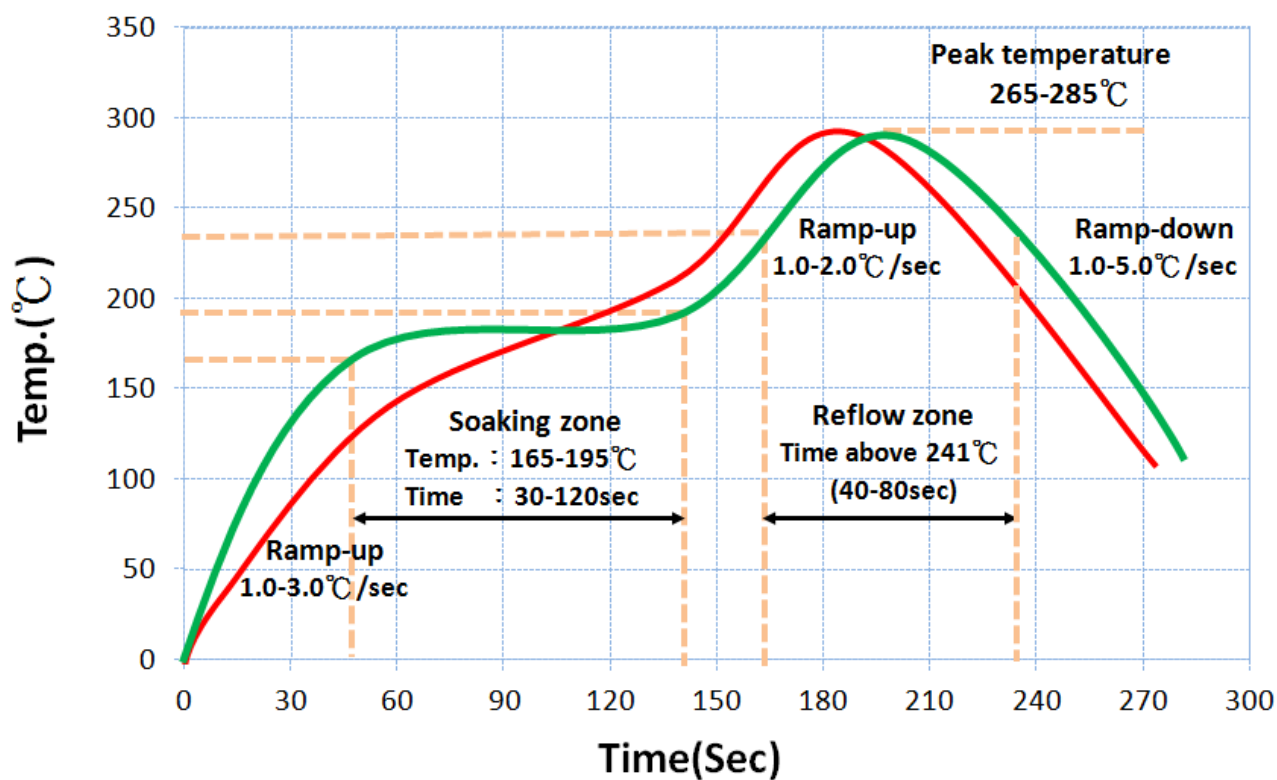
▲ Test Conditions : 85 °C, 85% RH for 168 hrs ◆ Test Conditions : 65 °C, 88.5% RH for 596 hrs

— Alloy Composition —

(Sn)	(Ag)	(Cu)	(Ni)	(Zn)	(Al)	(Sb)	(Fe)	(As)	(Bi)	(Cd)	(Au)	(In)	(Pb)
REM.	0.10 MAX	0.05 MAX	0.01 MAX	0.001 MAX	0.001 MAX	4.5~ 5.5	0.02 MAX	0.03 MAX	0.10 MAX	0.002 MAX	0.05 MAX	0.10 MAX	0.05 MAX

All alloy of SHENMAO' products were to conform to SONY Green Partner and comply RoHS requirement. (wt%)

— Temperature Profile —



— Handling and Storage Instructions —

1. Storage

- (1) Refrigerate pastes at 0~10 °C helps prolong shelf life; normal shelf life is 6 months from production date (sealed jars).
- (2) Keep away from direct sunlight.

2. Operation Manual (Sealed)

- (1) Allow pastes to reach ambient printing temperature prior to use for 3 - 4 hrs. Do not heat to raise temperature abruptly.
- (2) Well mix paste with plastic spatula for 1-3 mins before use. Mixing time depends on tool type.

3. Operation Manual (Opened)

- (1) At first, add 2/3 jar of solder paste onto the stencil. Do not add more than 1 jar.
- (2) Add a little amount of paste at a time on the stencil according to printing speed.
- (3) It is recommended to finish fresh paste within 24 hrs. To maintain paste quality, make sure not to store used paste and fresh paste in the same jar.
- (4) After printing, it is suggested to place components to be mounted on the circuit board and reflow within 4 – 6 hrs.
- (5) If printing process was interrupted for more than 1 hr, be sure to remove paste remnant from stencil and seal them in the jar.
- (6) It is recommended to keep printing environment at 22~28 °C and RH of 30~60%.
- (7) To clean up printed circuit boards, it is suggested to use ethanol or isopropanol.

Contact Information

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