SHENMAO TECHNOLOGY

Lead-Free Solder Paste

PF 606-P30

version 1, 13.7.2015

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% (Type 4) +38µm < 1% , - 20µm < 10% (Type 5) +25µm < 1% , - 15µm < 10% (Type 6) +15µm < 1% , - 5µm < 10%	IPC-TM-650, 2.2.14
Powder Shape	Spherical	
Flux Content	11.5 ± 1.0 wt%	JIS-Z-3197, 8.1.2
Halide Content	< 0.0 wt% (in flux)	J-STD-004
Viscosity	200 ± 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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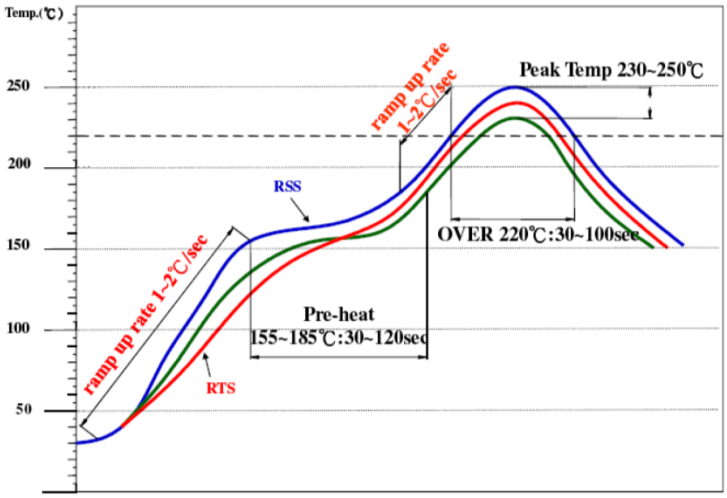
PERFORMANCE & RELIABILITY

Copper Plate Corrosion Test	Pass	JIS-Z-3197, 8.4.1
Spreading Test	> 70%	JIS-Z-3197, 8.3.1.1
Ion Chromatology 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,10 rpm)	200 ± 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 ▲	> 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 ℃, 85% RH for 168 hrs* ◆*Test Conditions : 65 ℃, 88.5% RH for 596 hrs*

RECOMMENDED REFLOW PROFILE



Ramp Up Rate (30~150°C): **1.0~2.0 °C/sec**

Pre-heating Time (155~185°C): **30~120 sec**

Time Period Above 220°C: **30~100 sec**

Ramp Up Heating Rate: **1.0~2.0 °C/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. Shelf life is 6 months from production date (sealed package).
- Keep away of 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% .

CONTACTS

LINK HAMSON

www.linkhamson.com
Tel: +44 (0)1494 439786
sales@linkhamson.com