SHENMAO TECHNOLOGY

Lead-Free Solder Paste

PF602-P

Rev. 2016/03/01 Ver. 02-01

BASIC OVERVIEW

BiSn42 Solder Paste
Low Halide Content
No Clean
Low Voiding
Low Melting Point

APPLICATIONS

Low Melting Point Lead-Free SMD Solder Paste
Wide Range of Applications and PCB designs

FEATURES

Appearance	Gray paste w/o visible foreign and clusters	
Alloy Composition	BiSn42	JIS-Z-3282
Melting Point	139 °C	
Particle Size	(Type 3) +45μm < 1% , - 20μm < 10%	IPC-TM-650, 2.2.14
Powder Shape	Spherical	
Flux Content	10.5 ± 1.0 wt%	JIS-Z-3197, 8.1.2
Halide Content	<0.5 wt% (in flux)	J-STD-004
Viscosity	180 ± 50 Pa.s (25±1°C, 10rpm, Malcom)	JIS-Z-3284 Annex 6
Flux Type	ROL1	J-STD-004

Alloy Detail Composition

(Bi)	(Sn)	(Ag)	(Cu)	(Ni)	(Zn)	(Al)	(Sb)	(Fe)	(As)	(Cd)	(Au)	(Pb)
REM.	41~43	0.1 MAX	0.05 MAX	0.01 MAX	0.001 MAX	0.001 MAX	0.05 MAX	0.02 MAX	0.03 MAX	0.002 MAX	0.05 MAX	0.05 MAX

(wt%)

Scan Code for Solder Paste Documents

www.nevo-solder.com

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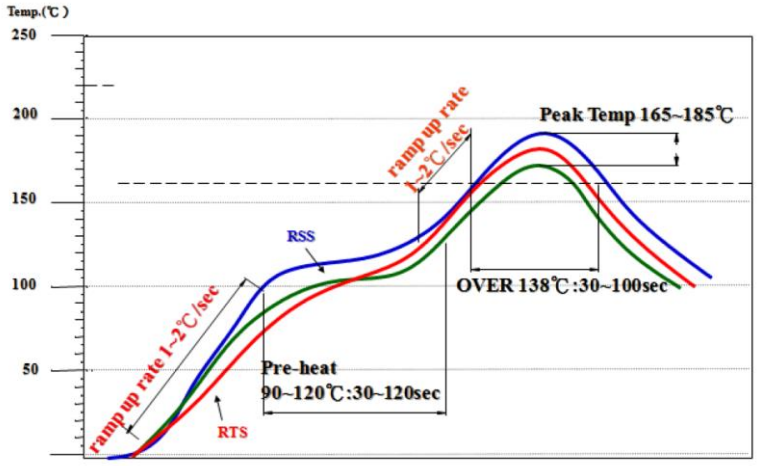
PERFORMANCE & RELIABILITY

Copper Plate Corrosion Test	Pass	JIS-Z-3197, 8.4.1
Spreading Test	> 70%	JIS-Z-3197, 8.3.1.1
Copper Mirror Test	Pass	IPC-TM-650, 2.3.32
Viscosity Test (25°C,10 rpm)	180 ± 50 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 x 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 168hrs* ◆ *Test Conditions: 65°C, 88.5% RH for 596 hrs*

RECOMMENDED REFLOW PROFILE



Ramp Up Rate (30-90°C):	**1.0-2.0 °C/sec**
Pre-heating Time (90-120°C):	**30-120 sec**
Time Period Above 138°C:	**30-100 sec**
Ramp Up During Reflow:	**1.0-2.0 °C/sec**
Peak Temperature:	**165-185 °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% .

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

HOW TO ORDER

PF602 – P – T3 – 500

Solder Alloy	Flux	Particle Size	Weight / Packaging
PF602 = BiSn42	P = ROL1	T3 = 20-45µm	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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