Partnership in Solder Technology Innovation

Lead-Free Solder Paste PF602-P30

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

BASIC OVERVIEW



BiSn42 Solder Paste Halide Free 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	<0.0 wt% (in flux)	J-STD-004	
Viscosity	180 ± 50 Pa.s (25±1°C, 10rpm, Malcom)	JIS-Z-3284 Annex 6	
Flux Type	ROLO	J-STD-004	

Alloy Detail Composition

(Bi)	(Sn)	(Ag)	(Cu)	(Ni)	(Zn)	(Al)	(Sb)	(Fe)	(As)	(Cd)	(Au)	(Pb)
REM.	41~	0.1	0.05	0.01	0.001	0.001	0.05	0.02	0.03	0.002	0.05	0.05
	43	MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX
												(14/+%)

(wt%)

Scan Code for Solder Paste Documents



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PERFORMANCE & RELIABILITY

®

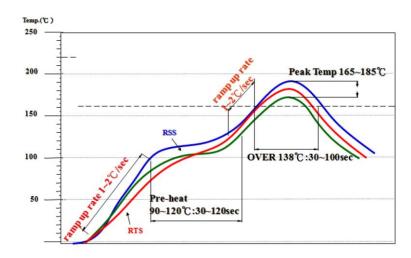
Copper Plate Corrosion Test	Pass	JIS-Z-3197, 8.4.1	
Ion Chromatography Test	0.0 wt%	IPC-TM-650 Method 2.3.28.1	
Copper Mirror Test	Pass	IPC-TM-650, 2.3.32	
Viscosity Test (25°C,10 rpm)	180 ± 50 Pa.s	JIS-Z-3284. Annex 6	
Spreading Test	> 70%	JIS-Z-3197, 8.3.1.1	
Tackiness Test (gf)	> 130 (8hr)	JIS-Z-3284. 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



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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 - P30 - T3 - 500

Solder Alloy PF602 = BiSn42 Flux P30 = ROL0 Particle Size T3 = 20-45µm

Weight / Packaging 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



SYRINGE

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