# Lead-Free Solder Paste
## PF606-P245

Rev. 2018/03/12 Ver. 01-01

## BASIC OVERVIEW

SnAg3.0Cu0.5X Solder Paste
No Clean
Halogen Free
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) | 20µm - 45µm | J-STD-005 |
| | (Type 4) | 20µm - 38µm | |
| | (Type 5) | 15µm - 25µm | |
| Powder Shape | Spherical | | |
| Flux Content | 12.0 ± 1.0 wt% | | JIS-Z-3197, 8.1.2 |
| 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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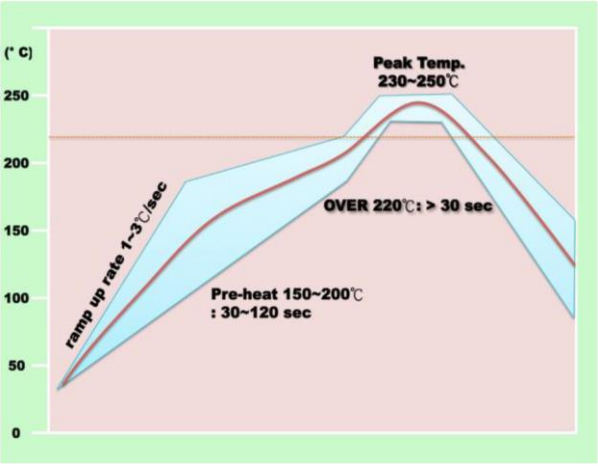
## PERFORMANCE & RELIABILITY

| | | |
|---|---|---|
| Copper Plate Corrosion Test | Pass | IPC-TM-650, 2.6.15 |
| Halogen Content Test | ROL0 | BS EN14582 |
| 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 |
| 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 ▲ | 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/s**

**Pre-heating Time (150-200°C):** **30-120s**

**Time Period Above 220°C:** **> 30s**

**Peak Temperature:** **230-250°C**

**Ramp Down Cooling Rate:** **1.0-6.0°C/s**

Notes:

- The recommended reflow profile is provided as a guideline. Optimal profile may differ due to oven type, assembly layout or other process variables.
- For solder paste with powder size Type 4.5 or smaller, nitrogen atmosphere is strongly recommended for best soldering result.

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## STORAGE & HANDLING:

- Refrigerate solder paste at 0-10°C. Shelf life is 6 months from production date (sealed package).
- Keep away from direct sunlight.
- Allow paste to reach ambient temperature (22-28°C) prior to use for 3-4 hrs. Do not heat up solder paste abruptly.
- Well mix paste with plastic spatula for 1min before use (jars packaging).
- 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.
- If printing process was interrupted for more than 1 hr, remove the remained paste from the stencil and seal in the jar.
- Recommended printing environment is 22-28°C and RH 30-60%.
- 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 – P245 – T4 – 500

| Solder Alloy | Flux | Particle Size | Weight / Packaging |
|---|---|---|---|
| PF606 = SnAg3.0Cu0.5 | P245 = ROL0 | 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 |

CARTRIDGE

JAR

SYRINGE

## CONTACTS

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