SHENMAO TECHNOLOGY

# Lead-Free Solder Paste

## PF 629-P

version 1, 07/15

## BASIC OVERVIEW

SnAg0.3Cu0.7 Solder Paste
Low Halide
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/Ag0.3/Cu0.7 | JIS-Z-3282 |
| Melting Point | 217~226 °C | |
| Particle Size | (Type 3) +45μm < 1% , - 20μm < 10%<br>(Type 4) +38μm < 1% , - 20μm < 10% | IPC-TM-650, 2.2.14 |
| Powder Shape | Spherical | |
| Flux Content | 11 ± 1.0 wt% | JIS-Z-3197, 8.1.2 |
| Halide Content | <0.5 wt% (in flux) | J-STD-004 |
| Viscosity | 200 ± 30 Pa . S (25±1°C, 10rpm, Malcom) | JIS-Z-3284 Annex 6 |
| Flux Type | ROL1 | J-STD-004 |

## Alloy Detail Composition

| (Sn) | (Ag) | (Cu) | (Ni) | (Ge) | (Zn) | (Al) | (Sb) | (Fe) | (As) | (Bi) | (Cd) | (Pb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REM. | 0.2~0.4 | 0.5~0.9 | 0~0.01 | 0~0.01 | 0.001 MAX | 0.001 MAX | 0.05 MAX | 0.02 MAX | 0.03 MAX | 0.06 MAX | 0.002 MAX | 0.05 MAX |

*Patent No.: U.S Patent No. 6179935B1, Germany Patent No.19816671C2* *(wt%)*

Scan Code for Solder Paste Documents

www.nevo-solder.com

SHENMAO TECHNOLOGY

# Lead-Free Solder Paste

## PF 629-P

version 1, 07/15

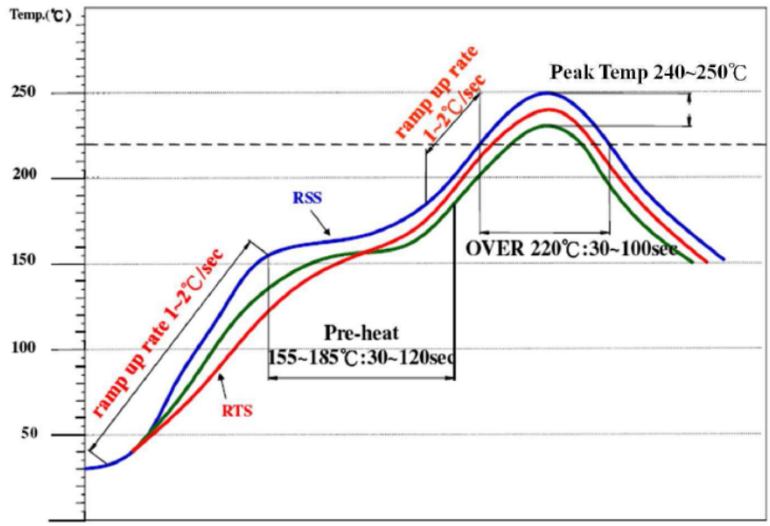
## PERFORMANCE & RELIABILITY

| | | |
|---|---|---|
| Copper Plate Corrosion Test | Pass | JIS-Z-3197, 8.4.1 |
| Spreading Test | > 75% | JIS-Z-3197, 8.3.1.1 |
| 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 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 (30~150°C):** 1.0~2.0 °C/sec

**Pre-heating Time (150~185°C):** 30~120 sec

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

**Ramp Up Heating Rate:** 1.0~2.0 °C/sec

**Peak Temperature:** 240~250 °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.

Partnership in Solder Technology Innovation

SHENMAO TECHNOLOGY

# Lead-Free Solder Paste

## PF 629-P

version 1, 07/15

## 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

# PF629 – P – T3 – 500

| Solder Alloy | Flux | Particle Size | Weight / Packaging |
|---|---|---|---|
| PF 629 = SnAg0.3Cu0.7 | P = ROL1 | T3 = 45µm | 30 = syringe 30g |
| | | T4 = 38µm | 100 = syringe 100g |
| | | T5 = 25µm | 150 = syringe 150g |
| | | T6 = 15µm | 250 = plastic jar 250g |
| | | | 500 = plastic jar 500g |
| | | | 600 = small cartridge 600g |
| | | | 1200 = large cartridge 1200g |

CARTRIDGE

JAR

SYRINGE

## CONTACTS


Tel.: +49-152-5106-5427

support@nevo-solder.com

www.nevo-solder.com





NeVo®, Škrobárenská 506/2, 617 00 BRNO, CZECH REPUBLIC