

No-Clean Lead-Free ,Halide-Free Solder Paste

Model: PF606-P26

Rev.2015/12/30 Ver.05-00

— Specification —

| Item | Specification | Standard |
|-------------------|--|---------------------|
| 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% | |
| Powder Shape | Spherical | |
| Flux Content | 12.0±1.0wt.% | JIS-Z-3197, 8.1.2 |
| Viscosity | 200±30 Pa · s (25±1°C, 10rpm, Malcom) | JIS-Z-3284, Annex 6 |
| Flux Type | ROLO | J-STD-004 |

— Test Content —

| Test Item | Test Result | Test Method |
|-----------------------------|---------------|------------------------|
| Copper Plate Corrosion Test | Pass | IPC-TM-650, 2.6.15 |
| Halogen Content Test | ROLO | BS EN14582 |
| Copper Mirror Test | Pass | IPC-TM-650, 2.3.32 |
| Viscosity Test (25°C,10rpm) | 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 |

— Reliability Test —

| Test Item | Test Result | Test Method |
|--------------------------|-------------|----------------------|
| 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 168 hrs

◆ Test Conditions : 65°C, 88.5% RH for 596 hrs

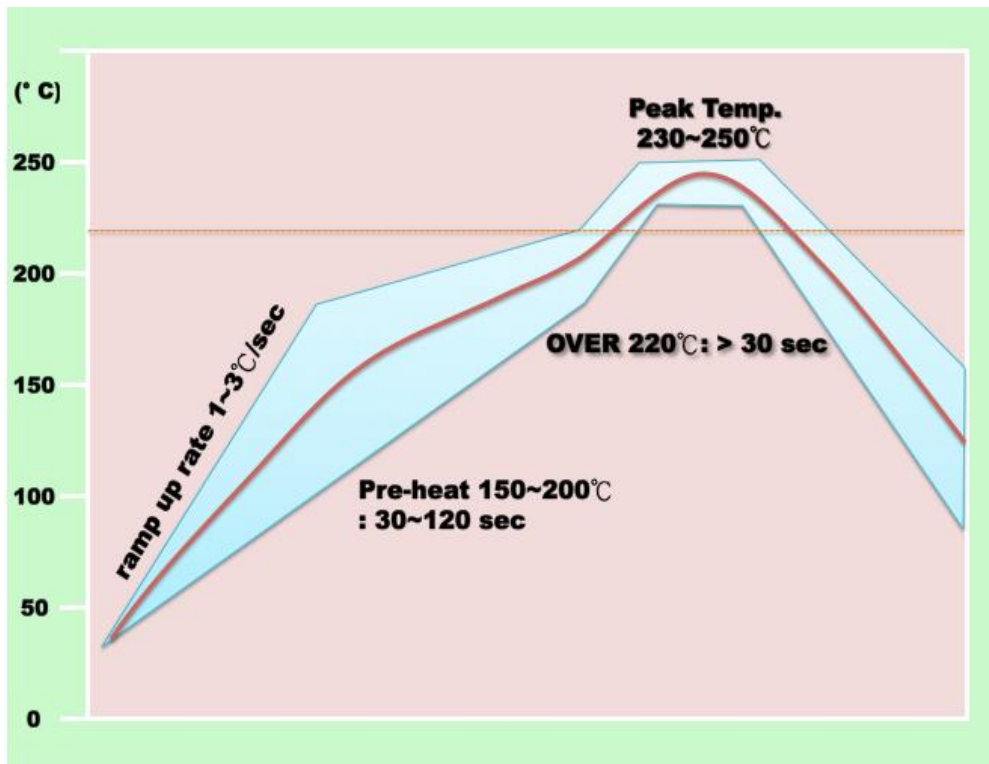
— Alloy Composition —

| 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.%)

All alloy of SHENMAO' products were to conform to SONY Green Partner and comply RoHS requirement.

— Temperature Profile —



The recommended reflow profile for the PF606-P26 is provided as a guideline. Optimal profile may differ due to oven type, assembly layout, or other process variables.

- Ramp Up Rate (30~150°C): 1.0~3.0 °C/sec
- Pre-heating Time (150~200°C) : 30~120 sec
- Time Period Above 220°C: >30 sec
- Peak Temperature: 230~250 °C
- Ramp Down Rate During Cooling: 1.0~6.0 °C/sec

— Handling and Storage Instructions —

1. Storage

- (1) Refrigerate pastes at 0~10 °C helps prolong shelf life; normal shelf life is 6 months from production date (sealed jars).
- (2) Keep away from direct sunlight.

2. Operation Manual (Sealed)

- (1) Allow pastes to reach ambient printing temperature(22-28°C) prior to use for 3 - 4 hrs. Do not heat to raise temperature abruptly.
- (2) Well mix paste with plastic spatula for 1-3 mins before use. Mixing time depends on tool type.

3. Operation Manual (Opened)

- (1) At first, add 2/3 jar of solder paste onto the stencil. Do not add more than 1 jar.
- (2) Add a little amount of paste at a time on the stencil according to printing speed.
- (3) 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.
- (4) After printing, it is suggested to place components to be mounted on the circuit board and reflow within 4 – 6 hrs.
- (5) If printing process was interrupted for more than 1 hr, be sure to remove paste remnant from stencil and seal them in the jar.
- (6) It is recommended to keep printing environment at 22~28 °C and RH of 30~60%.
- (7) To clean up printed circuit boards, it is suggested to use ethanol or isopropanol.

Contact Information

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