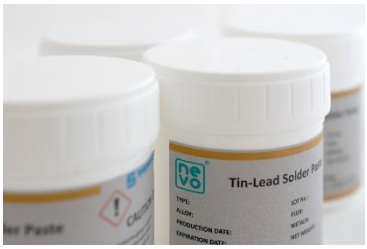
SHENMAO TECHNOLOGY

# Tin-Lead Solder Paste

## SH-10882HM

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

## BASIC OVERVIEW




Sn10Pb88Ag2 Solder Paste
Halide Free
No Clean
Low Voiding
High Melting Point

## APPLICATIONS

High Temperature Tin-Lead SMD Solder Paste
Very High Operating Temperature Applications and PCB designs

## FEATURES

| | | |
|---|---|---|
| Appearance | Gray paste w/o visible foreign and clusters | |
| Alloy Composition | Sn10/Pb88/Ag02 | JIS-Z-3282 |
| Melting Point | 268~290°C | DSC |
| 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 | 10.0 ± 1.0 wt% | JIS-Z-3197, 6.1. |
| Halide Content | 0.0 wt% (in flux) | J-STD-004 |
| Viscosity | 200 ± 30 Pa.s (25±1°C, 10rpm, Malcom) | JIS-Z-3284 Annex 6 |
| Flux Type | ROL0 | J-STD-004 |

## Alloy Detail Composition

| (Pb) | (Sn) | (Ag) | (Cu) | (Zn) | (Al) | (Sb) | (Fe) | (As) | (Bi) | (Cd) |
|---|---|---|---|---|---|---|---|---|---|---|
| 88.0 ± 0.5 | 10.0 ± 0.5 | 2.0 ± 0.2 | 0.05 MAX | 0.001 MAX | 0.001 MAX | 0.05 MAX | 0.02 MAX | 0.03 MAX | 0.1 MAX | 0.002 MAX |

*(wt%)*

Scan Code for Solder Paste Documents

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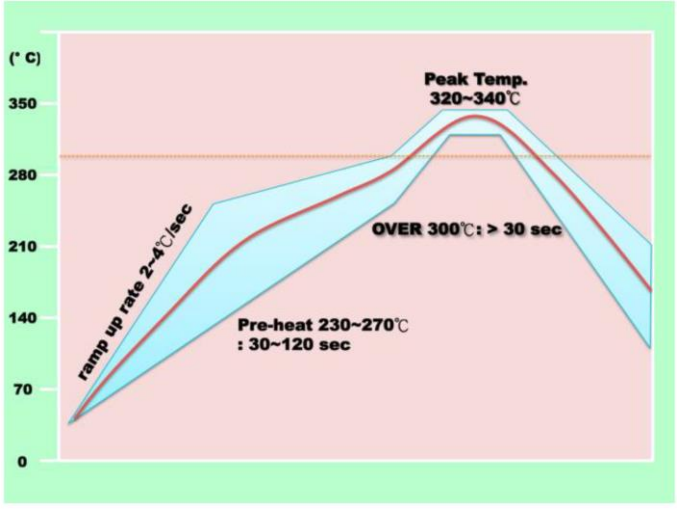
## PERFORMANCE & RELIABILITY

| | | |
|---|---|---|
| Copper Plate Corrosion Test | Pass | JIS-Z-3197, 6.6.1 |
| Spreading Test | > 90% | JIS-Z-3197, 6.10 |
| Silver Chromate Test | Pass | IPC-TM-650, 2.3.33 |
| Copper Mirror Test | Pass | IPC-TM-650, 2.3.32 |
| Fluorides By Spot Test | Pass | IPC-TM-650, 2.3.35.1 |
| 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 | Less than 0.3 mm | JIS-Z-3284. Annex 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 ◆ | > 1 x $10^{12}$ Ω, Pass | IPC-TM-650, 2.6.14.1 |

▲ *Test Conditions : 85 °C, 85% RH* ◆ *Test Conditions: 65°C, 85% RH*

## RECOMMENDED REFLOW PROFILE




**Ramp Up Rate (30-230°C):** **2.0-4.0 °C/sec**

**Pre-heating Time (230-270°C):** **30-120 sec**

**Time Period Above 300°C:** **> 30 sec**

**Peak Temperature:** **320-340 °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

# SH10882 – HM – T3 – 500

| Solder Alloy | Flux | Particle Size | Weight / Packaging |
|---|---|---|---|
| SH+10882 = Sn10/Pb88/Ag2 | HM = ROL0 | T3 = 20-45µm<br>T4 = 20-38µm | 30 = syringe 30g<br>100 = syringe 100g<br>150 = syringe 150g<br>250 = plastic jar 250g<br>500 = plastic jar 500g<br>600 = small cartridge 600g<br>1200 = large cartridge 1200g |

CARTRIDGE

JAR

SYRINGE

## CONTACTS

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