

4902P



Sn42/Bi57/Ag1 Low Temperature Solder Paste T3

4902P Sn42/Bi57/Ag1 is a low temperature solder made for surface mount applications. This SMT solder paste spreads and adheres well to a variety of materials, and provides excellent soldering results and appearances. A uniform low temperature solder paste, it dispenses evenly and resists solder beading and bright spots.

This surface mount solder paste is an ideal low temperature solder for electronics and is specially designed for radiators, LEDs and telecommunication assemblies.

We also offer a no-clean Sn63/Pb37 solder paste and a no-clean lead-free solder paste.



Features & Benefits

Alloy exceeds J-STD-006C and meets ASTM B 32 purity requirements

Flux meets J-STD-004B for ROM1

Particle size Type 3

No-clean

Excellent 12 mil fine pitch printing capability

Long operational life—non-slumping

Good wettability

Halogen and lead-free

Available Packaging

Part #	Packaging	Net Vol.	Net Wt.
4902P-15G	Syringe	15 mL	15 g

Storage and Handling

Store between 2 and 10 °C in an upright position with tip down to prevent flux separation and air entrapment.

Unopened container:

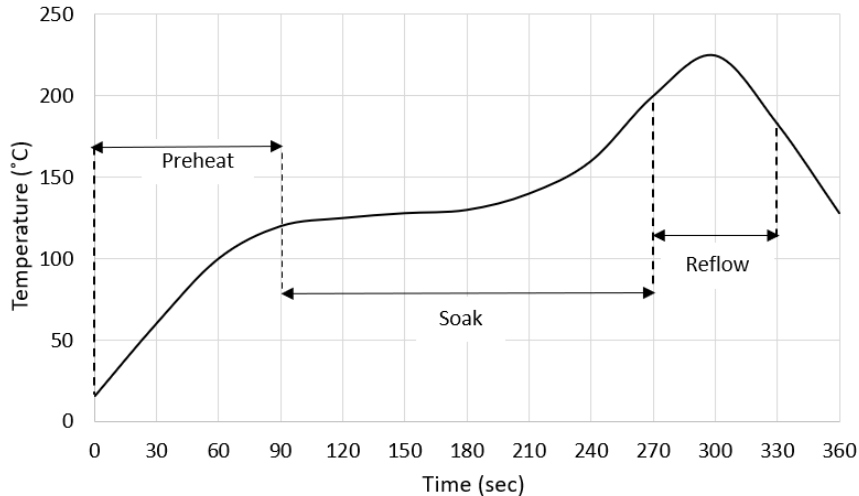
Shelf Life @ 2–10 °C 2 y

Shelf Life @ 20–25 °C 1 y

Properties

Flux Classification	ROM1	J-STD-004B, MIL-F-14256F
Flux Type	Rosin	J-STD-004B
Flux Activity	Moderate	J-STD-004B
Copper Mirror	No penetration	IPC-TM-650 2.3.32
Corrosion Test	Minor corrosion	IPC-TM-650 2.6.15
Collapsibility	Pass	—
Electromigration		Bellcore GR-78-CORE 13.1.4
@ 96 h	$4 \times 10^9 \Omega$	
@ 596 h	$4 \times 10^9 \Omega$	
Viscosity @ 10 rpm/min	153 000 cP	IPC-TM-650 2.4.34.3 modified
Acid Number (mg KOH/g)	142	IPC-TM-650 2.3.13
Halides (by weight)	$\leq 0.15 \%$	J-STD-004B
Flux Content	11 %	—
Adhesive Force @ 96 h	139 gf	—
Surface Insulation Resistance (SIR)		IPC-TM-650 2.6.3.3
@ 96 h	$\geq 2.0 \times 10^9 \Omega$	
@ 596 h	Pass	
Shelf Life	2 y	—

Reflow Profile



Reflow

Best results are achieved when the paste is reflowed in a forced air convection oven with a minimum of 8 zones. The following is a recommended profile for a forced air convection reflow process.

Preheat Zone—It is the ramp zone, which elevates the temperature of the PCB to the desired soak temperature. The rate of temperature rise should not exceed 2.5 °C/s to avoid thermal shock stress.

Soak Zone—It exposes the PCB to a stable temperature that allows the components to reach a uniform temperature. It allows the flux to concentrate and the volatiles to escape from the paste.

Reflow Zone—It is the spike zone, which elevates the temperature of the PCB assembly from the activation temperature to the recommended peak temperature.

Application Instructions

Read the product SDS for more detailed instructions before using this product.

1. Take solder paste out of refrigerator and allow it to reach room temperature prior use.
2. Remove the cap from the syringe. Do not discard cap.
3. Insert plunger to the back of the syringe. For better control, insert needle to the tip.
4. Dispense paste onto the desired area and place component on top.
5. Apply heat using a heat gun.
6. Clean tip to prevent contamination and material buildup.
7. Replace the cap on the syringe.
8. (Optional) Clean residue with MG #8241-T or #8241-W Isopropyl Alcohol Wipes.

Disclaimer: This information is believed to be accurate. It is intended for professional end-users who have the skills required to evaluate and use the data properly. M.G. Chemicals Ltd. does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.