

Thermally Stable Solder Paste WS (Water-Soluble) Sn42/Bi57.6/Ag0.4 T4 (35g Syringe)

Product Highlights

Revolutionary Formula: No Refrigeration Required!

Printing speeds up to 100mm/sec

Long stencil life

Wide process window

Excellent Wetting with Moderate Activity (REM0) Flux

Water-Soluble Easily cleaned with water (60°C+)

Low voiding

Compatible with most board finishes

Dispense grade

Compatible with enclosed print heads

RoHS 3 and REACH compliant

Specifications

Alloy: Sn42/Bi57.6/Ag0.4

Mesh Size: T4

Micron (µm) Range: 20-38

Flux Type: Synthetic Water-Soluble

Flux Classification: REM0 (Residue must be water-washed at 60°C+ after reflow)

Metal Load: 87% Metal by Weight

Melting Point: 138°C (281°F)

Packaging: 35g/10cc Syringe

Shelf Life: Refrigerated >6 months, Unrefrigerated >6 months *See notes below:



***Shelf Life Notes:** Chip Quik® solder paste is good past its quoted shelf life, regardless of refrigeration. Before use, visually inspect the solder paste to ensure it is not dried out or clumpy, or check stencil release. If stored in a jar, stir the product thoroughly for 2-3 minutes before inspection and use.

Chip Quik® solder paste is manufactured using high quality synthetic flux and precision atomized metal powder. Chip Quik® solder paste is guaranteed for 12 months from date of manufacture, regardless of refrigeration. If you have any issues with our solder paste, please contact Chip Quik® directly for no charge warranty replacement. Please retain original bill of sale, and solder paste in original container as we may request its return for internal R&D testing purposes.

Printer Operation

Print Speed: 25-100mm/sec

Squeegee Pressure: 70-250g/cm of blade

Under Stencil Wipe: Once every 10-25 prints, or as necessary

Stencil Life

>12 hours @ 20-50% RH 22-28°C (72-82°F)

>4 hours @ 50-70% RH 22-28°C (72-82°F)

Stencil Cleaning

Automated stencil cleaning systems for both stencil and misprinted boards. Manual cleaning using isopropyl alcohol (IPA).

Storage and Handling

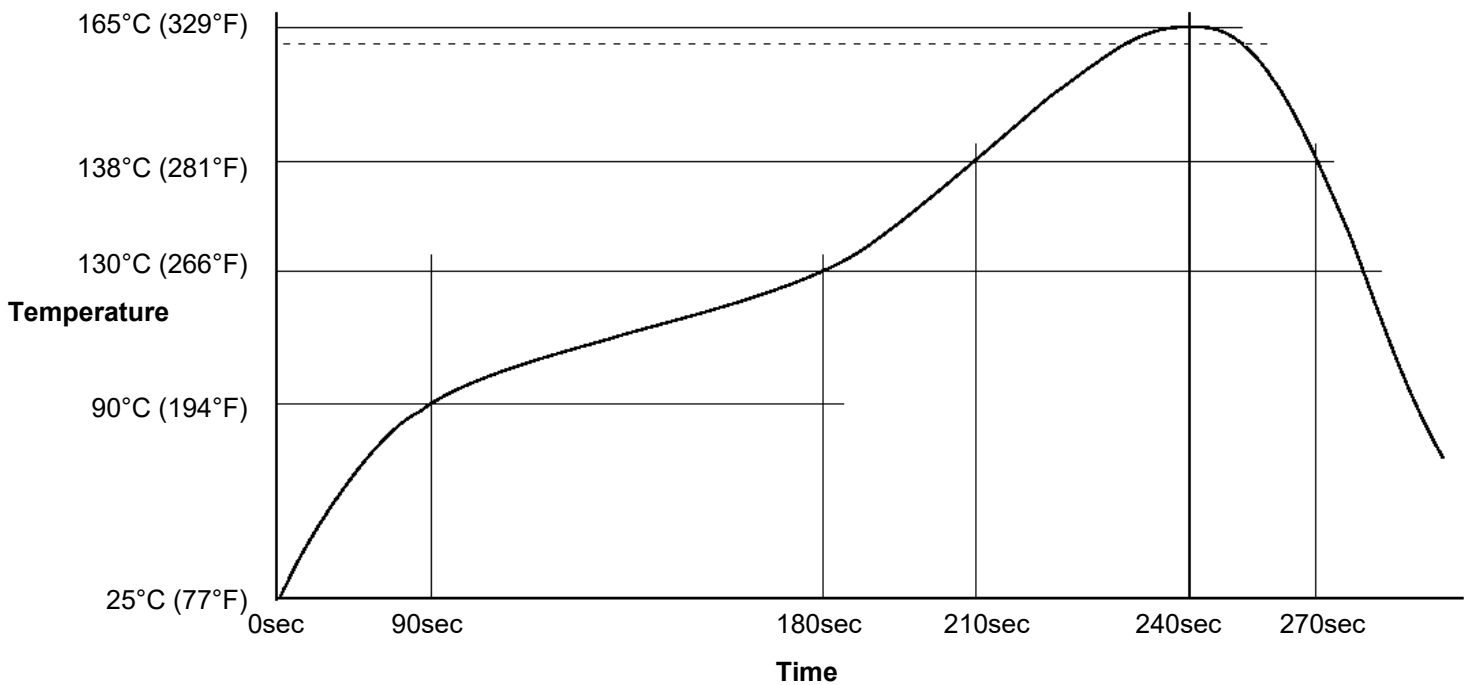
Store at 3-25°C (37-77°F). Do not freeze. Refrigeration is not required, but will extend shelf life. Allow 4 hours for solder paste to reach an operating temperature of 20-25°C (68-77°F) before use.

Transportation

This product has no shipping restrictions. Shipping below 0°C (32°F) or above 25°C (77°F) for normal transit times by ground or air will not impact this product's stated shelf life.

Recommended Profile

Reflow profile for Sn42/Bi57.6/Ag0.4 solder assembly, designed as a starting point for process optimization.



Test Results

| Test J-STD-004 or other requirements as stated | Test Requirement | Result |
|---|--|--|
| Copper Mirror | IPC-TM-650: 2.3.32 | L: No breakthrough |
| Corrosion | IPC-TM-650: 2.6.15 | L: No corrosion |
| Quantitative Halides | IPC-TM-650: 2.3.28.1 | L: <0.05% |
| Electrochemical Migration | IPC-TM-650: 2.6.14.1 | L: <1 decade drop |
| Surface Insulation Resistance 85°C, 85% RH @ 168 Hours | IPC-TM-650: 2.6.3.7 | L: ≥100MΩ |
| Tack Value | IPC-TM-650: 2.4.44 | 37g |
| Viscosity – Malcom @ 10 RPM/25°C (x10 ³ mPa/s) | IPC-TM-650: 2.4.34.4 | Print: 155-215, Dispense: 80-115 |
| Visual | IPC-TM-650: 3.4.2.5 | Clear and free from precipitation |
| Conflict Minerals Compliance | Electronic Industry Citizenship Coalition (EICC) | Compliant |
| REACH Compliance | Articles 33 and 67 of Regulation (EC) No 1907/2006 | Contains no substance >0.1% w/w that is listed as a SVHC or restricted for use in solder materials |

Conforms to the following Industry Standards:

| | |
|---|-----|
| J-STD-004B, Amendment 1 (Solder Fluxes): | Yes |
| J-STD-005A (Solder Pastes): | Yes |
| J-STD-006C, Amendments 1 & 2 (Solder Alloys and Fluxed/Non-Fluxed Solders): | Yes |
| RoHS 3 Directive (EU) 2015/863: | Yes |