# **CHIPQUIK®**

# TS991SNL500T4C

Datasheet revision 1.1 www.chipquik.com

## Solder Paste Sn96.5/Ag3.0/Cu0.5 T4 88.5% No-Clean 500g Cartridge Thermally Stable

Low voiding

#### **Product Highlights**

Revolutionary Formula: No Refrigeration Required!

Printing speeds up to 100mm/sec

Long stencil life Wide process window

Clear residue

Excellent wetting compatibility on most board finishes
Print grade
Compatible with enclosed print heads
RoHS 3 and REACH compliant

#### **Specifications**

Alloy: Sn96.5/Ag3.0/Cu0.5

Mesh Size: T4
Micron (µm) Range: 20-38

Flux Type: Synthetic No-Clean

Flux Classification: REL0

Metal Load: 88.5% Metal by Weight

Melting Point: 217°C (423°F)
Packaging: 500g Cartridge

Shelf Life: Refrigerated >12 months, Unrefrigerated >12 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**

>8 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

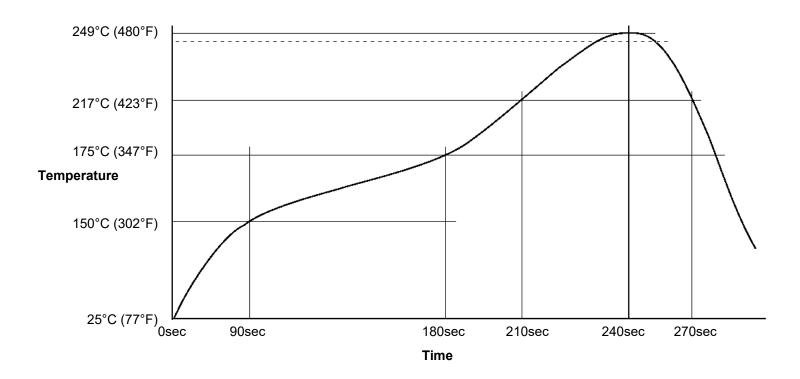
Store at 3-25°C (37-77°F). Do not freeze. Refrigeration is not required, but will extend shelf life. Allow 4 hours for solder paste to reach an operating temperature of 20-25°C (68-77°F) before use.

#### **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 Sn96.5/Ag3.0/Cu0.5 solder assembly, designed as a starting point for process optimization.



#### **Test Results**

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Test J-STD-004 or other	Test Requirement	Result
requirements as stated		
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 (No-clean)
Surface Insulation Resistance 85°C,	IPC-TM-650: 2.6.3.7	L: ≥100MΩ (No-clean)
85% RH @ 168 Hours		
Tack Value	IPC-TM-650: 2.4.44	64g
Viscosity – Malcom @ 10 RPM/25°C (x10³mPa/s)	IPC-TM-650: 2.4.34.4	Print: 155-215
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