# **CHIPQUIK®**

# **SMD4300LTLFP250T4**

Datasheet revision 1.4 www.chipquik.com

# Solder Paste Water-Washable No-Clean Sn42/Bi57.6/Ag0.4 in Jar 250g T4 Mesh

**Product Highlights** 

Printing speeds up to 100mm/sec

Long stencil life

Wide process window

Clear residue

Low voiding

Excellent wetting compatibility on

most board finishes

Print grade

Compatible with enclosed print

heads

**RoHS 3 and REACH compliant** 

### **Applications**

Suitable for most no-clean applications with or without cleaning. For applications requiring cleaning, use aqueous wash with appropriate saponification. Our SMD4300 series of fluxes and solder pastes are our easiest to clean, and have been used in many applications. Due to the wide range of applications and operating environments, customers should test this product in their specific application to ensure suitability.

#### **Specifications**

Alloy: Sn42/Bi57.6/Ag0.4

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

Flux Type: Synthetic Water-Washable No-Clean

Flux Classification: REL0

Metal Load: 90% Metal by Weight Melting Point: 138°C (281°F)

Packaging: Jar 250g

Shelf Life: Refrigerated >6 months, Unrefrigerated >2 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**

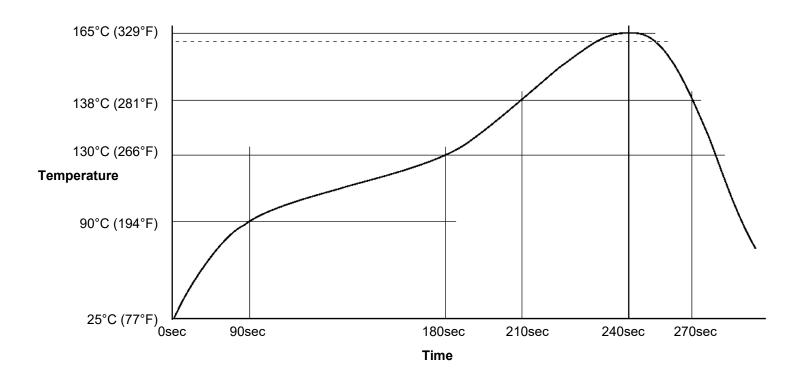
Refrigerate at 3-8°C (37-46°F). Do not freeze. Allow 4 hours for solder paste to reach an operating temperature of 20-25°C (68-77°F) before use.

# **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 (No-clean)   |
| Surface Insulation Resistance 85°C, 85% RH @ 168 Hours    | IPC-TM-650: 2.6.3.7                                   | L: ≥100MΩ (No-clean)   |
| Tack Value  | IPC-TM-650: 2.4.44                                    | 37g  |
| Viscosity – Malcom @ 10 RPM/25°C (x10 <sup>3</sup> 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)<br>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):

| 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 |
|   |     |