

## RMA Solder Paste Sn42/Bi57.6/Ag0.4 Ultra Low Balling T4 (35g syringe) ROM1

### 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  
 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 No-Clean   |
| Flux Classification: | ROM1 (Must be cleaned off post-use using Flux Remover or IPA)      |
| Metal Load:          | 87% Metal by Weight  |
| Melting Point:       | 138°C (281°F)  |
| Packaging:           | 10cc/35g Syringe   |
| 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

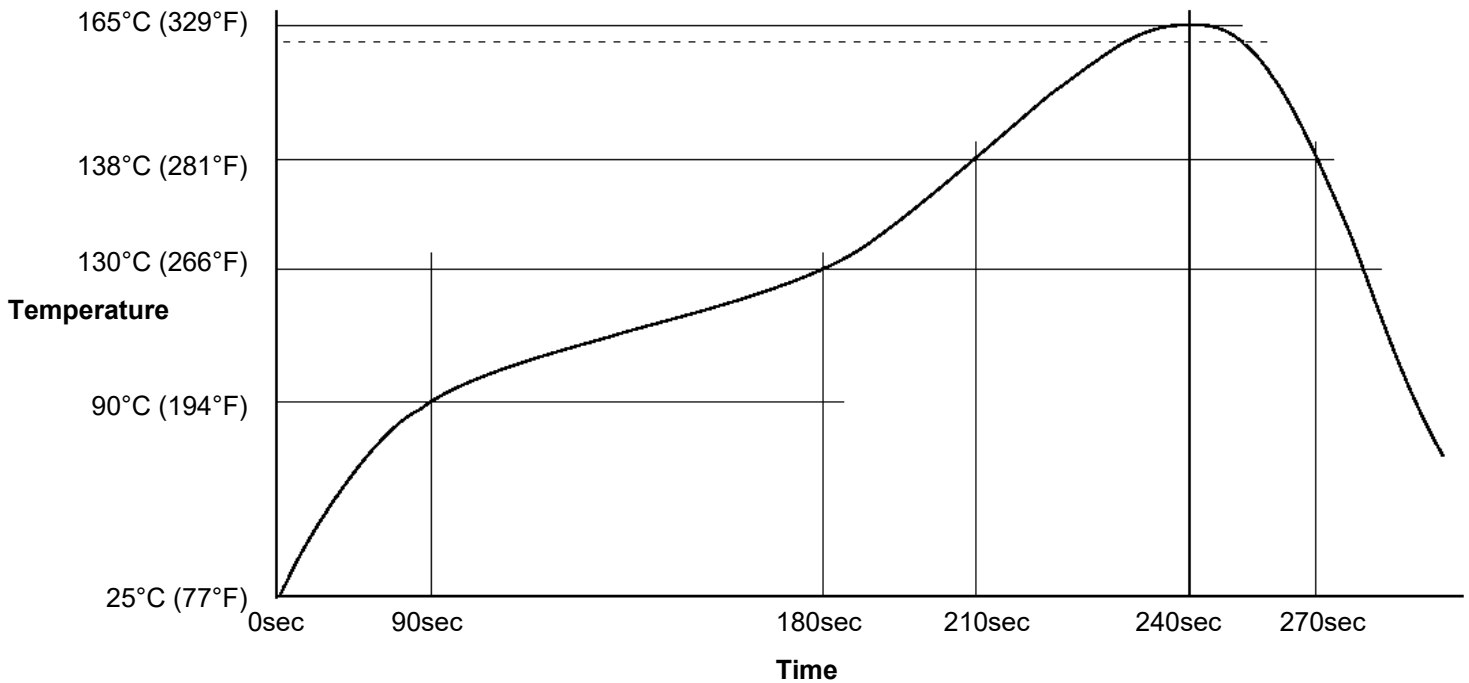
Refrigerate at 3-8°C (37-46°F). Do not freeze. Allow 4 hours for solder paste to reach an operating temperature of 20-25°C (68-77°F) before use.

### 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                                 | M: <50% breakthrough   |
| Corrosion   | IPC-TM-650: 2.6.15                                 | M: minor corrosion (uncleaned)   |
| Quantitative Halides                                      | IPC-TM-650: 2.3.28.1                               | M: ≥0.05 and <0.5%   |
| Electrochemical Migration                                 | IPC-TM-650: 2.6.14.1                               | M: <1 decade drop (cleaned)  |
| Surface Insulation Resistance 85°C, 85% RH @ 168 Hours    | IPC-TM-650: 2.6.3.7                                | M: ≥100MΩ (cleaned)  |
| Tack Value  | IPC-TM-650: 2.4.44                                 | 35-40g   |
| Viscosity – Malcom @ 10 RPM/25°C (x10 <sup>3</sup> mPa/s) | IPC-TM-650: 2.4.34.4                               | Print: 165-225, Dispense: 85-125   |
| 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 |

**CHIPQUIK® RMA Solder Paste Available Products**

| Alloy              | Particle Size | Melting Point         | Flux Classification | Percent Metal | Packaging        | Part Number    |
|--------------------|---------------|-----------------------|---------------------|---------------|------------------|----------------|
| Sn63/Pb37          | T4 (20-38µm)  | 183°C (361°F)         | ROL0                | 87.00%        | 10cc/35g syringe | RMA591AX10     |
|                    |               |                       |                     | 90.00%        | 250g jar         | RMA591AX250    |
| Sn62/Pb36/Ag2      | T4 (20-38µm)  | 179°C (354°F)         | ROL0                | 87.00%        | 10cc/35g syringe | RMA591AXS10    |
|                    |               |                       |                     | 90.00%        | 250g jar         | RMA591AXS250   |
| Sn96.5/Ag3.0/Cu0.5 | T4 (20-38µm)  | 217-220°C (423-428°F) | ROL0                | 86.00%        | 10cc/35g syringe | RMA591L0SNL10  |
|                    |               |                       |                     | 88.50%        | 250g jar         | RMA591L0SNL250 |
|                    |               |                       | ROM1                | 86.00%        | 10cc/35g syringe | RMA591SNL10    |
|                    |               |                       |                     | 88.50%        | 250g jar         | RMA591SNL250   |
| Sn42/Bi57.6/Ag0.4  | T4 (20-38µm)  | 138°C (281°F)         | ROL0                | 87.00%        | 10cc/35g syringe | RMA591L0LT10   |
|                    |               |                       |                     | 90.00%        | 250g jar         | RMA591L0LT250  |
|                    |               |                       | ROM1                | 87.00%        | 10cc/35g syringe | RMA591LT10     |
|                    |               |                       |                     | 90.00%        | 250g jar         | RMA591LT250    |