Thermally Stable Solder Paste No-Clean Sn42/Bi57.6/Ag0.4 T4 (15g Syringe)

**Product Highlights**

*Revolutionary Formula: No Refrigeration Required!*

- 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:** ROL0
- **Metal Load:** 87% Metal by Weight
- **Melting Point:** 138°C (281°F)
- **Max Operating Temperature:** 96°C (Maximum Recommended Operating Temperature After Reflow/Assembly)
- **Packaging:** 5cc/15g Syringe
- **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:** 25-125mm/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 room temperature 20-25°C (68-77°F). Do not freeze. Chip Quik Thermally Stable solder paste should be stored at its operating temperature (room temperature) of 20-25°C (68-77°F), therefore no warming time is required 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

<table>
<thead>
<tr>
<th>Test J-STD-004 or other requirements as stated</th>
<th>Test Requirement</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper Mirror</td>
<td>IPC-TM-650: 2.3.32</td>
<td>L: No breakthrough</td>
</tr>
<tr>
<td>Corrosion</td>
<td>IPC-TM-650: 2.6.15</td>
<td>L: No corrosion</td>
</tr>
<tr>
<td>Quantitative Halides</td>
<td>IPC-TM-650: 2.3.28.1</td>
<td>L: &lt;0.05%</td>
</tr>
<tr>
<td>Electrochemical Migration</td>
<td>IPC-TM-650: 2.6.14.1</td>
<td>L: &lt;1 decade drop (No-clean)</td>
</tr>
<tr>
<td>Surface Insulation Resistance 85°C, 85% RH @ 168 Hours</td>
<td>IPC-TM-650: 2.6.3.7</td>
<td>L: ≥100MΩ (No-clean)</td>
</tr>
<tr>
<td>Tack Value</td>
<td>IPC-TM-650: 2.4.44</td>
<td>33g</td>
</tr>
<tr>
<td>Viscosity – Malcom @ 10 RPM/25°C (x10³ mPa/s)</td>
<td>IPC-TM-650: 2.4.34.4</td>
<td>Print: 140-195, Dispense: 115-160</td>
</tr>
<tr>
<td>Visual</td>
<td>IPC-TM-650: 3.4.2.5</td>
<td>Clear and free from precipitation</td>
</tr>
<tr>
<td>Conflict Minerals Compliance</td>
<td>Electronic Industry Citizenship Coalition (EICC)</td>
<td>Compliant</td>
</tr>
<tr>
<td>REACH Compliance</td>
<td>Articles 33 and 67 of Regulation (EC) No 1907/2006</td>
<td>Contains no substance &gt;0.1% w/w that is listed as a SVHC or restricted for use in solder materials</td>
</tr>
</tbody>
</table>

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