Datasheet revision 1.1

**Solder Paste No-Clean Sn42/Bi57.6/Ag0.4 60g T4 Mesh**

**Two Part Mix™** [PATENT PENDING]

**Product Highlights**
- 2 year shelf life unrefrigerated before mixed
- Printing speeds up to 100mm/sec
- Long stencil life
- Wide process window
- Clear residue
- Low voiding
- Excellent wetting compatibility on most board finishes
- RoHS II 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:** REL0
- **Metal Load:** 87% Metal by Weight
- **Melting Point:** 138°C (281°F)
- **Packaging:** 2 compartment bag, includes Jar for after mixed storage, 60g
- **Shelf Life:** Before Mixed: Refrigerated >24 months, Unrefrigerated >24 months
  - After Mixed: Refrigerated >6 months, Unrefrigerated >2 months

**How to Mix the Two Parts**
This product MUST BE MIXED within its bag before use. To mix, squeeze the flux pocket towards the solder powder pocket and the seal between the two compartments will break open, creating a single pocket bag. Then knead the mixture back and forth for 2-3 minutes, or until a uniform consistency is achieved.

**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**
Before Mixed: Store refrigerated or at room temperature 3-25°C (37-77°F). Do not freeze.
After Mixed: 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. Once mixed, the solder paste can be dispensed by cutting a small corner off the bag. It can be resealed with a piece of Scotch® tape, or it can be stored by dispensing the entire bag into the provided empty jar.
**Recommended Profile**
Reflow profile for Sn42/Bi57.6/Ag0.4 solder assembly, designed as a starting point for process optimization.

![Reflow Profile Graph](graph)

**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;0.5%</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>48g</td>
</tr>
<tr>
<td>Viscosity – Malcom @ 10 RPM/25°C (x10^3mPa/s)</td>
<td>IPC-TM-650: 2.4.34.4</td>
<td>Print: 125-180, Dispense: 90-130</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 2 Directive 2011/65/EU: Yes