Datasheet revision 1.1 www.chipquik.com

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

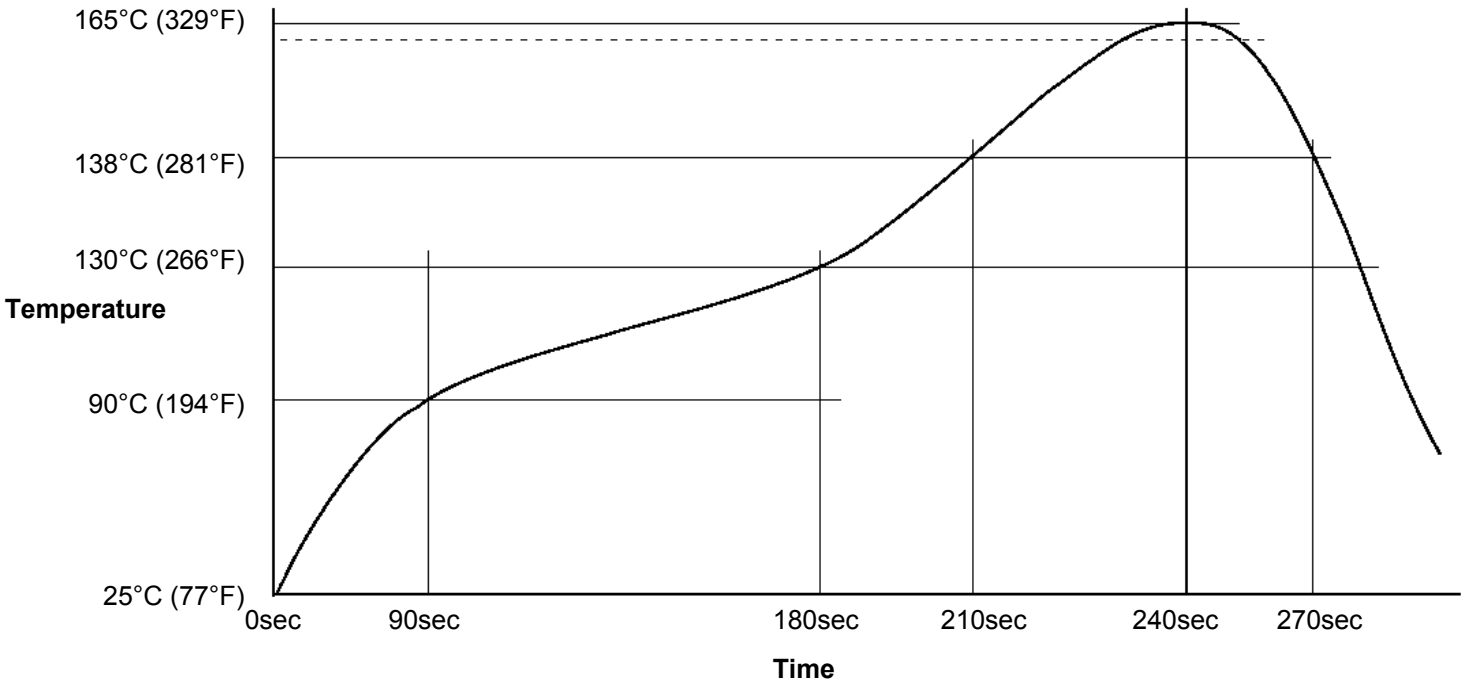
Automated stencil cleaning systems for both stencil and misprinted boards. Manual cleaning using isopropyl alcohol (IPA).

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.



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