CHIPQUIK® WS430LT500T4C

Datasheet revision 1.1 www.chipquik.com

Solder Paste Sn42/Bi57.6/Ag0.4 T4 89.75% Water-Washable No-Clean 500g Cartridge Thermally Stable

Product Highlights

Revolutionary Formula: ***No Refrigeration Required!***
Printing speeds up to 100mm/sec
Long stencil life
Wide process window
Excellent Wetting
Water-Washable Easily cleaned with water (60°C+)
Low voiding
Compatible with most board finishes
Print 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 Water-Washable No-Clean
Flux Classification:	REL0 (Residue can be washed off with hot water (60°C+), or left on (no-clean) for most applications)
Metal Load:	89.75% Metal by Weight
Melting Point:	138°C (281°F)
Packaging:	500g Cartridge
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: 25-100mm/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 3-25°C (37-77°F). Do not freeze. Refrigeration is not required, but will extend shelf life. Allow 4 hours for solder paste to reach an operating temperature of 20-25°C (68-77°F) before use.

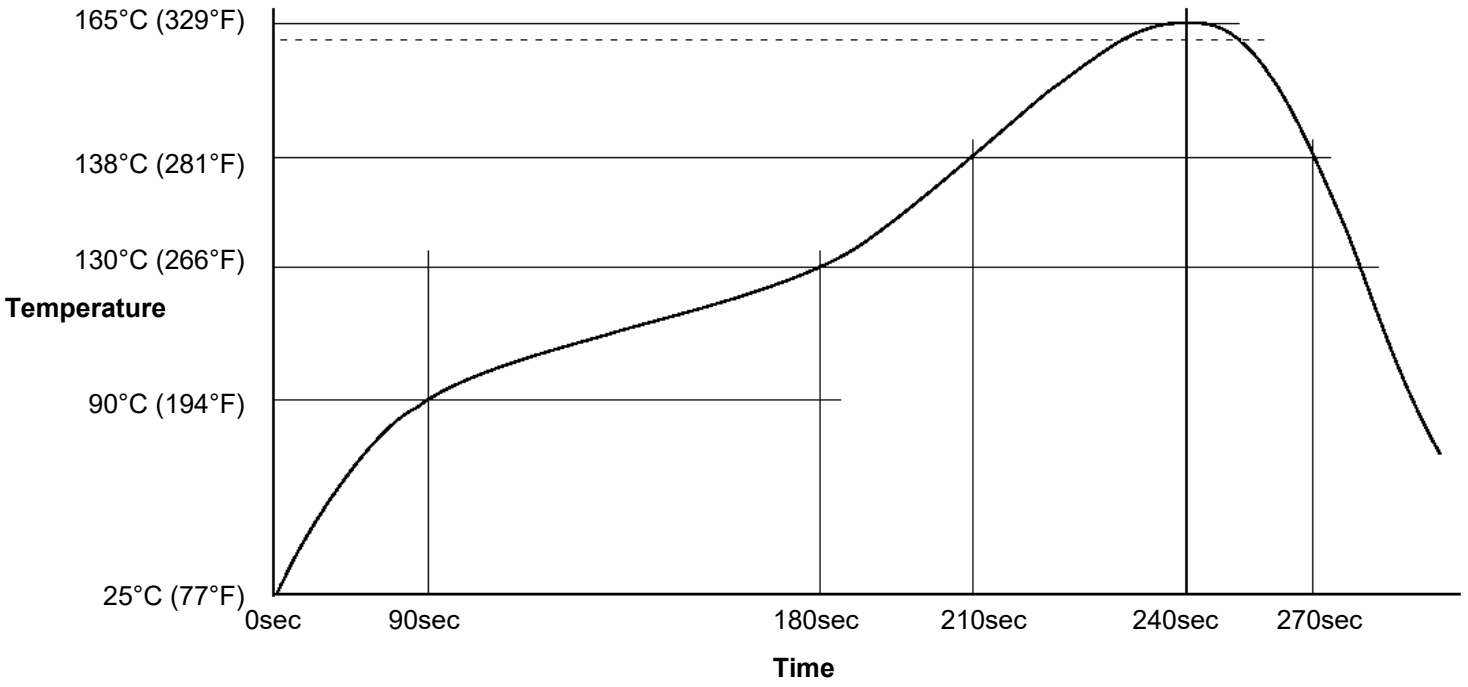
Transportation

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.

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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
Surface Insulation Resistance 85°C, 85% RH @ 168 Hours	IPC-TM-650: 2.6.3.7	L: ≥100MΩ
Tack Value	IPC-TM-650: 2.4.44	37g
Viscosity – Malcom @ 10 RPM/25°C ($x10^3$mPa/s)	IPC-TM-650: 2.4.34.4	Print: 155-215
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

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