

# AMTECH

## Advanced SMT Solder

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An ISO 9001 Certified Company

Product Data Sheet For Chip Quik® Pt. # SMD291SNL, SMD291SNL10

## SynTECH-LF Lead-Free No-Clean Solder Paste

### Product Description

- Synthetic materials
- Long stencil life and wide process window
- Halogen/Halide Free
- Excellent wetting compatibility on most board finishes
- Low voiding
- Compatible with enclosed printing heads
- Clear residue

### Alloys

AMTECH manufactures a low-oxide, spherical and uniformly sized powder. SynTECH-LF is available in the following alloys: Sn96.5/Ag3.0/Cu.5, Sn96.5/Ag3.5, Sn99.3/Cu.7, Sn95/Sb5 and Sn95/Ag5 alloys.

### Powder Distribution

| Micron Size | Type   | Pitch Requirements |
|-------------|--------|--------------------|
| 75 - 45     | Type-2 | 24mil & above      |
| 45 - 25     | Type-3 | 16mil to 24 mil    |
| 38 - 20     | Type-4 | 12mil to 16mil     |
| 25 - 15     | Type-5 | <12mil             |
| 15 - 5      | Type-6 | <8mil              |

### Available Packaging

The following packaging options are available for stencil printing and dispensing applications: 250g and 500g jars; 250g and 700g cartridges; 750g ProFlow® cassettes; 35g and 100g syringes; 2,500g FreshMix® Kits.

### Stencil Life

>10 hrs. @ 30–45% RH & 22–25°C  
~6 hrs. @ 45–70% RH & 22–25°C

### Viscosity

Printing applications: 700 to 1,000Kcps +/-10%

Dispensing applications: 450Kcps +/-10%

Tested according to IPC-TM-650

### Tack Value

Typical tackiness: 40 - 60g force

### Printing

The print definition of SynTECH-LF is ideal for fine pitch applications. The stencil life of this no-clean product virtually eliminates waste of solder paste. Consult the powder distribution chart to determine your mesh size requirements.

### Printer Operation

The following are general guidelines for stencil printer optimization with SynTECH-LF. Some adjustments may be necessary based on your process requirements.

Print Speed: 25–100mm/sec

Squeegee Pressure: 0.2–0.7kg/inch of blade

Under Stencil Wipe: Once every 10–25 prints or as necessary

### Stencil Cleaning

Automated stencil cleaning systems for both stencil and misprinted boards. Manual cleaning using 99% isopropyl alcohol (IPA) works well.

### Storage and Handling Procedures

Refrigerated storage at 42–47°F will prolong the solder paste shelf life to no less than 6 months. Syringes & cartridges should be stored vertically with the dispensing tip down. Solder paste should be allowed to reach ambient temperature naturally, prior to use (about 6-8 hours). NEVER FREEZE SOLDER PASTE.

(continued)

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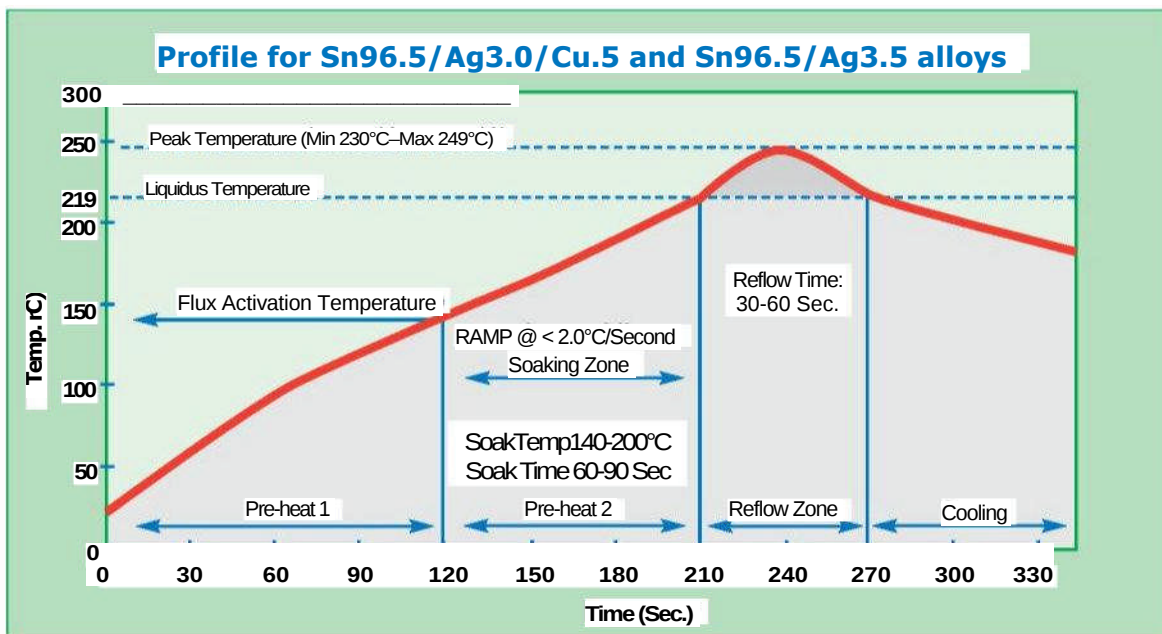
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## J-STD-004 (IPC-TM-650) Test Results

| Test             | Standard           | Values   | Results |
|------------------|--------------------|----------|---------|
| Flux Designator  | IPC-TM-650 2.3.35  | NA       | RELO    |
| Copper Mirror    | IPC-TM-650 2.3.32  | NA       | PASS    |
| Silver Chromate  | IPC-TM-650 2.3.33  | NA       | PASS    |
| Bono Mirror Test | <10%               | 1.56%    | PASS    |
| SIR Test         | IPC-TM-650 2.6.3.3 | 4.93E+10 | PASS    |

## Recommended Profile:

This profile was designed to serve as a starting point for process optimization using SynTECH-LF. A cool down rate of (-) 2–4°C/second is ideal for the formation of a fine grain structure without risking damage to thermally sensitive components.



The information contained herein is based on technical data that we believe to be reliable and is intended for use by persons having technical skill, at their own risk. Users of our products should make their own tests to determine the suitability of each product for their particular process. AMTECH will assume no liability for results obtained or damages incurred through the application of the data presented.

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**AMTECH**

Advanced SMT Solder Products

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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