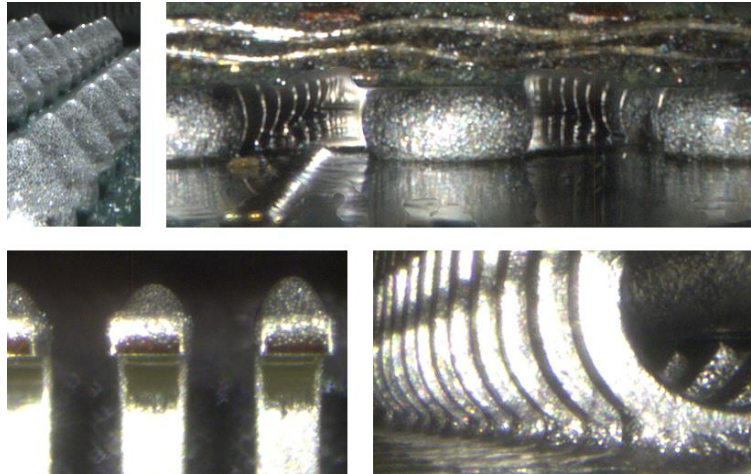


Technical Product Information

Lead-free Dip Solder Paste SAC305

Product Description

TAMURA ELSOLD Dip Paste is a mildly activated lead-free solder paste designed for dip application. BGA's and components with Gull Wing leads or similar can be easily charged with solder paste and flux by predefined dipping process. Compared to dispensing dipping is much faster and saves production time. Moreover likelihood of bridging is clearly reduced due to less applied solder paste and solder. By adding solder probability for cold joints caused by uneven substrates is strongly reduced. Depth of immersion is determined by geometrical shape of connections. Component bodies must not come into contact with the dip paste.



Dipped solder paste (left) and soldered parts (right)

ELSOLD Dip Paste provides

- Very good wetting on most surfaces
- Optimal application control
- High activity on all substrates
- Long open time
- Good tackiness
- Flux classification J-STD-004: ROL1
- Suitable for all soldering methods with indirect heating
- High slump resistance

Test Results

Tack Time > 8 h

Solder-Ball-Test: pass

IPC-TM 650, Method 2.4.43

Copper-Mirror-Test: L

IPC-TM-650, Method 2.3.3

Silver-Chromate-Paper-Test: pass

IPC-TM-650, Method 2.3.35.1

Surface Insulation Resistance

J-STD-004, IPC-TM-650, Method 2.6.3.3

Uncleaned, after 24 h:	$9.6 \times 10^8 \Omega$
Uncleaned, after 96 h:	$1.0 \times 10^9 \Omega$
Uncleaned, after 168 h:	$1.0 \times 10^9 \Omega$
Control, after 24 h:	$1.1 \times 10^{10} \Omega$
Control, after 96 h:	$1.2 \times 10^{10} \Omega$
Control, after 168 h:	$1.2 \times 10^{10} \Omega$

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Lead-free Dip Solder Paste SAC305

Physical Properties

Data for SAC305, 70 % Metal, Powder type 5: 10 - 25 µm

Viscosity: 200 – 300 Pa·s

Alloy	Sn [%]	Ag [%]	Cu [%]	Melting point/-range [°C]
SAC305	96.5 ± 0.5	3.0 ± 0.2	0.5 ± 0.2	219

Application

TAMURA ELSOLD Dip Solder Paste is applied by dipping connections into the paste. Immersion depth can be defined by stencil printing using a stencil of the appropriate thickness or by programming immersion depth with an automatic repair system.

Dip Paste contains very fine solder powder. Therefore solder paste should be allowed to reach room temperature before opening containers to avoid condensation of moisture on the cold material. After use container must be closed thoroughly. Never put used paste back into the jar.

Packaging

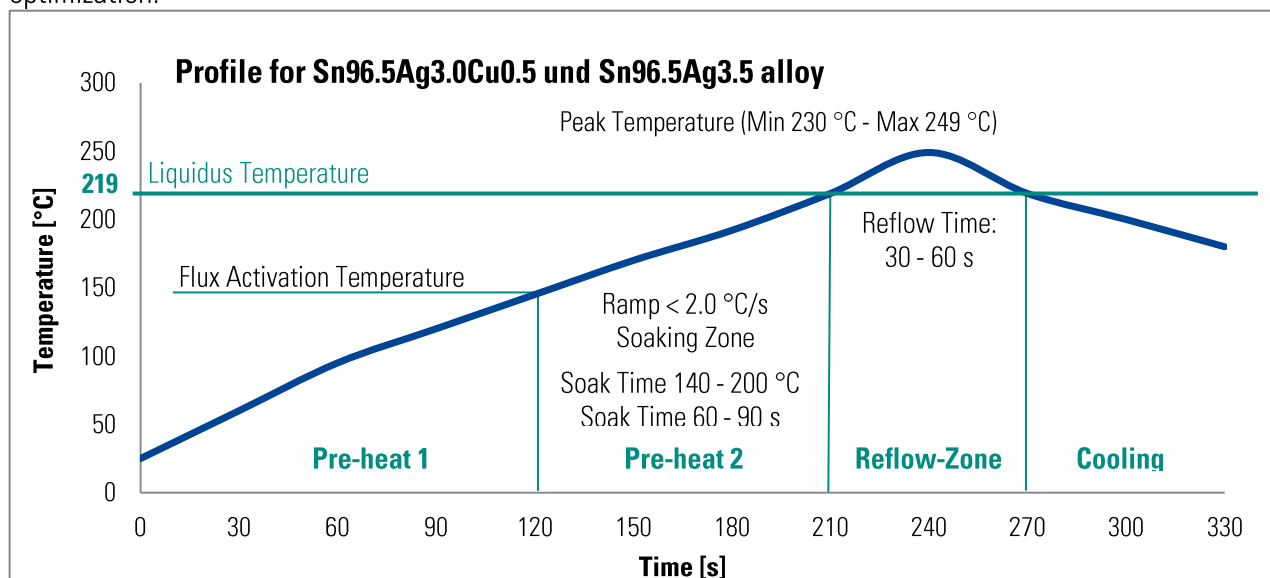
Jars of 250 g or 500 g resp. Other packages available on request.

Storage and Shelf Life

Jars: 6 months max, in un-opened original containers at 6 – 16 °C.

Reflow Profile

Typical temperature profile for lead-free solder alloys, which can be used as starting point for own process optimization.



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. TAMURA ELSOLD will assume no liability for results obtained or damages incurred through the application of the data presented.