

Technical Product Information

ELSOLD Solder Paste AP-10 Sn63Pb37 / Sn63Pb36Ag2

Product Description

Solder Paste AP-10 has been designed as a no clean, air or nitrogen reflowable solder paste. This formula has a wider process window and shows better activity on OSP boards than previous no clean formulations. AP-10 is a solder paste that maintains its activity and printing characteristics for up to 8 hours without shear thinning. AP-10 can tolerate printing pauses of up to 60 minutes with an effective first print down to 0.5 mm. The residues from AP-10 are light amber and clear from solder balls. AP-10 flux residues are light amber and washable with alcohols and/or commercial cleaners.

- Very good wetting behaviour on most surfaces
- High printing speeds up to 120 mm/s
- High activity on all substrates
- Very long stencil life of more than 6 hours
- Suitable for BGA and μ BGA
- Very good tack time for up to 24 hours
- J-STD-004 Flux classification: ROL1
- Very good printing characteristics down to 0.5 mm pitch with type 3 powder
- Very good slump characteristic

Surface Insulation Resistance

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

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

Test Results

Tackiness: > 8 hrs

Slump test: pass

IPC-TM-650, Method 2.4.35

Solderballing Test: pass

IPC-TM 650, Method 2.4.43

Copper Mirror Corrosion: L

IPC-TM-650, Method 2.3.3

Silver Chromate: pass

IPC-TM-650, Method 2.3.35.1

Physical Properties

Data for SnPb(Ag) solders, 86 – 90 % metal, Powder type 3 (25 – 45 μ m)

Viscosity 500 – 800 Pa·s

Alloy	Sn [%]	Pb [%]	Ag [%]	Melting point [°C]
S-Sn63Pb37	63 ± 0.5	37 ± 0.5	-	183
S-Sn62Pb36Ag2	62 ± 0.5	36 ± 0.5	2 ± 0.2	179

Application

Solder paste AP-10 can be applied by dispensing, stencil or sieve printing.

Cleaning

AP-10 is a no clean paste. Residues do not need to be removed in most cases, if cleaning is required solvents like ethanol, isopropanol or mixtures of alcohols and halogenated hydrocarbons as well as commercially available cleaners can be used for effective cleaning.

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Packaging

Jars: 250 g and 500 g Cassettes: DEK PRO-FLOW™ Cassettes
Cartridges: 600 g and 1200 g (SEMCO) Syringes: 10 cc and 30 cc

Storage and Shelf Life

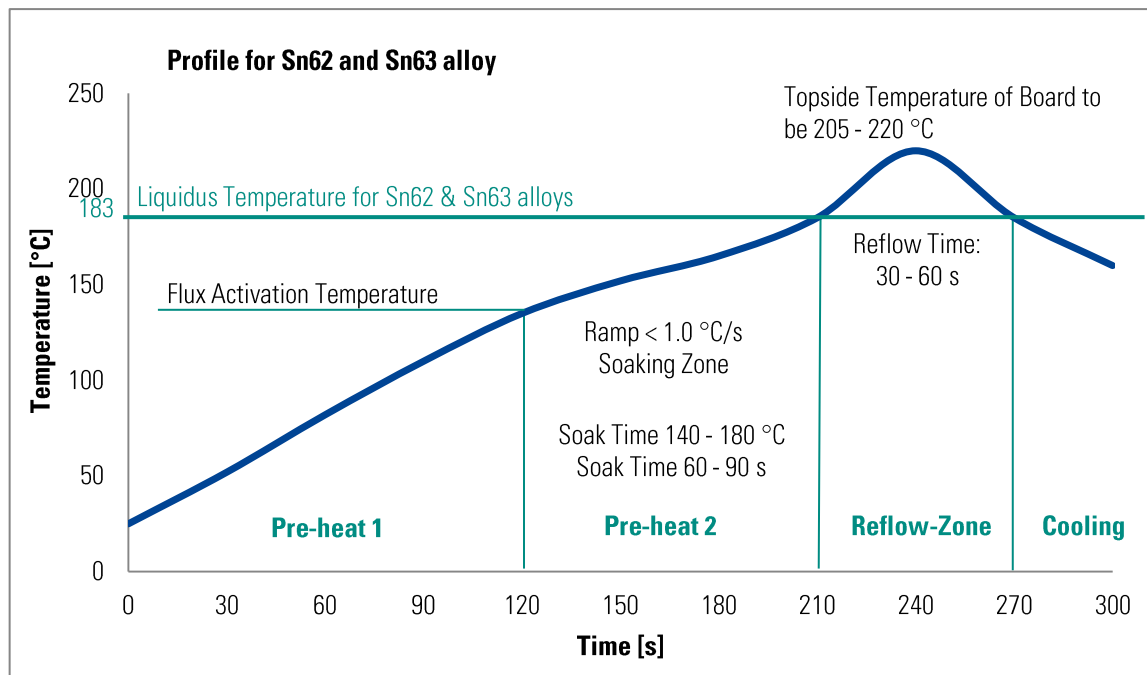
Jars: up to 6 months
Cartridges: up to 6 months Syringes: up to 3 months

Refrigerated storage at 6 – 16 °C is recommended for extended storage times. The material should be allowed to reach room temperature by itself before opening containers to avoid condensation of moisture on the cold material.

Printing

Squeegee: Stainless Steel
Speed: 25 – 50 mm/s
Stencil/Sieve: Stainless Steel
Environment: Recommended temperature range 20 – 25 °C, RH 40 – 65 %

Reflow Profile



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