

■ 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.

■ Features

- Very good wetting behaviour on most surfaces
- Good feeding & dosability
- Very long stencil life
- Very good tack time
- J-STD-004 Flux classification: ROL1
- Suitable for all soldering processes with indirect heating
- Good washability of residues

■ Test Results

Tackiness: > 8 hrs
 Slump test
 (IPC-TM-650, Method 2.4.35: pass)
 Solderballing Test:
 (IPC-TM 650, Method 2.4.43:pass)
 Copper Mirror Corrosion: L
 (IPC-TM-650, Method 2.3.3)
 Silver Chromate
 (IPC-TM-650, Method 2.3.35.1): pass

■ 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: $1.2 \times 10^{10} \Omega$

■ Physical Properties

Data for Sn(Ag)Cu solders, 85 - 88 % metal, Powder type 3, 4, 5
Viscosity 350 – 800 Pas

Alloy	Powder Type	Melting Range	Metal Content for Sieve Printing	Metal Content for Stencil or Dispensing
Sn99.3Cu0.7	Typ 3 (25 – 45 µm)	227 °C	87-89 %	85-87 %
Sn96.5Ag3Cu0.5	Typ 3 (25 – 45 µm)	217 – 219 °C	87-89 %	85-87 %
Sn96.5Ag3Cu0.5	Typ 4 (20 – 38 µm)	217 – 219 °C	87-89 %	85-87 %
Sn96.5Ag3Cu0.5	Typ 5 (15 – 25 µm)	217 – 219 °C	86-88 %	85-86 %

■ 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.

■ Packaging

Jars: 250 g and 500 g
 Cartridges: 600 g and 1200 g

Cassettes: DEK PRO-FLOW™ Cassettes
 Syringes: 10 cc and 30 cc

■ Storage and Shelf Life

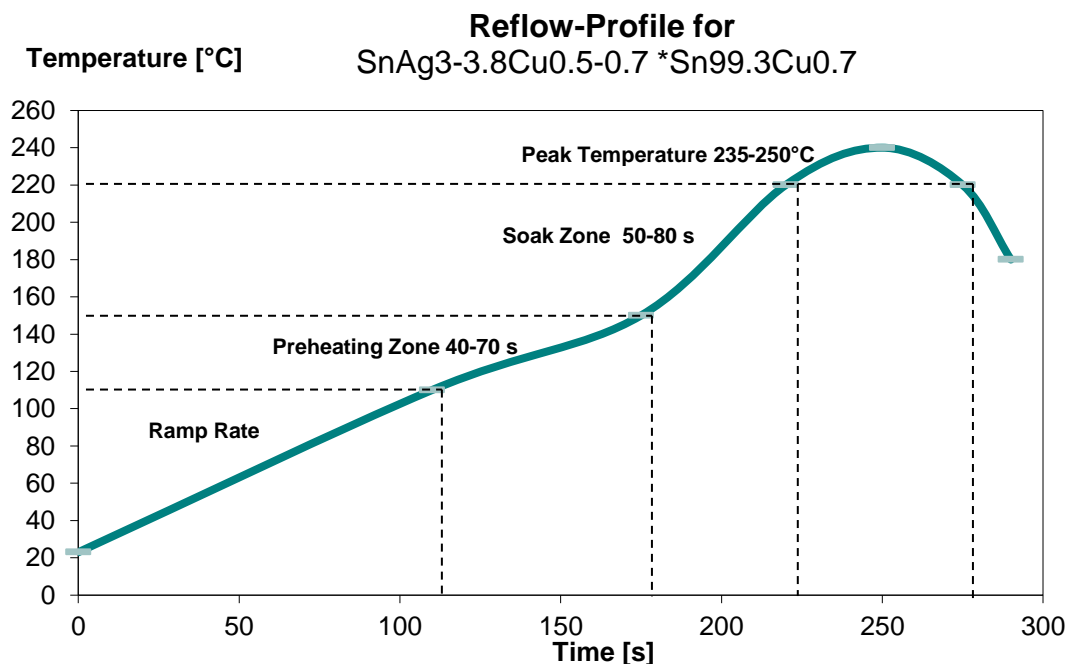
Jars: up to 6 months
 Cartridges: up to 3 months

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 21 – 25 °C, RH 40 – 65 %

■ Reflowprofil



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