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Product data sheet

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NO CLEAN SOLDERING PASTE

easy print

/Sn96,5Ag3Cu0,5/

Description:

- Paste for soldering of surface-mounted (SMD) components

Advantages:

- Resistant to solderballing (mid chip solderballing)
- Good adhesion to components for over 24hrs after application
- Exhibits long stencil life even for 8hrs of continuous printing, prolonged usability (stencil life)
- Low level of colourless, non-corrosive soldering residues (no clean), that are flexible enough to allow penetration of tester needles
- Fine pitch
- Printing with squeegee speed up to 150mm/s

Technical details

Properties	Results	Procedures
Chemical		
type of solder	Sn96,5Ag3Cu0,5	
classification of flux	REL - 0	J-STD - 004
paper chromatography test on Clfiz	satisfy (REL - 0)	IPC TM 650
Physical		
density	≈4,6 g/cm^3	IPC-TM 650T
particle size	25-45 µm	IPC-TM 650T
tackiness	1,0 G/mm^2 after 24h	IPC J-STD - 005
printability	more than 8h	
Electrical		
SIR-IPC	> 2,6*10^{9}Ω, after 7 days	IPC J-STD 004 (85˚C, in 85%)

Symbols:
SIR - Surface Insulation Resistance
IPC - J STD 004/ 005, IPC - TM650 - American standards defining technical requirements for pastes and fluxes

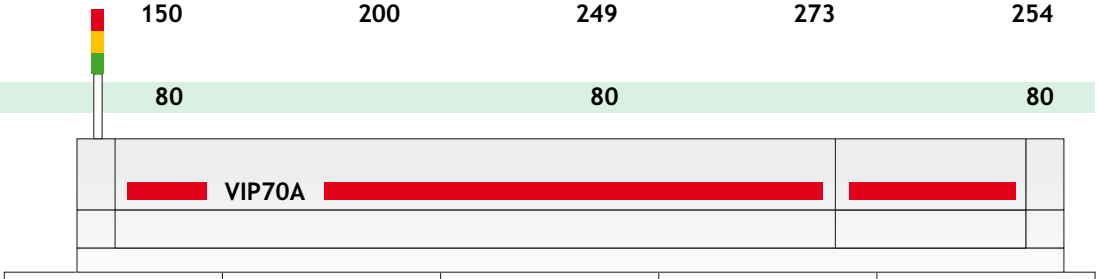
easy print is a set of fluxes and activators that should be considered as non-toxic.

Application requirements

Storage	Printing	Reflow	Cleaning
■ store in temp. 3-7˚C for no longer than 6 months in tightly closed containers. ■ the best (optimal) temperature of paste application: 23-26˚C ■ max. temperature of paste application: 28˚C ■ in order to avoid changes in rheology of the paste do not mix used with unused paste. ■ in order to prevent condensation of moisture and to achieve required properties of the paste warm the container up to room temperature for several hours before opening	■ laser-cut stencils or electro-formed stencils: ■ 100µm for pitch = 0.4mm ■ 150µm for pitch > 0.5 mm ■ metal stencils are recommended ■ squeegee travel speed in a printer: 25- 150 mm/sec ■ squeegee pressure: 1.5- 3N at a cm of length ■ amount of paste on a stencil: size of a roll rolling ahead of squeegee is 15-20mm	■ any soldering methods are allowed (air or nitrogen atmospheres) ■ preheating: ramp-up temperature 1-2,0˚C/s to 145-160˚C or max. 210- 220˚C for versions without plateau ■ plateau phase (only for packages with high density assemblies having different mass) 145-160˚C for 60- 90s ■ soldering - reflow phase: 30-90s above 180˚C ■ cooling: gradient: 1-2˚C/s	■ as a rule a no-clean paste does not require cleanin ■ however if cleaning is necessary it is recommended to use alcohol PCB cleaner.

Soldering procedure for profile No. 1

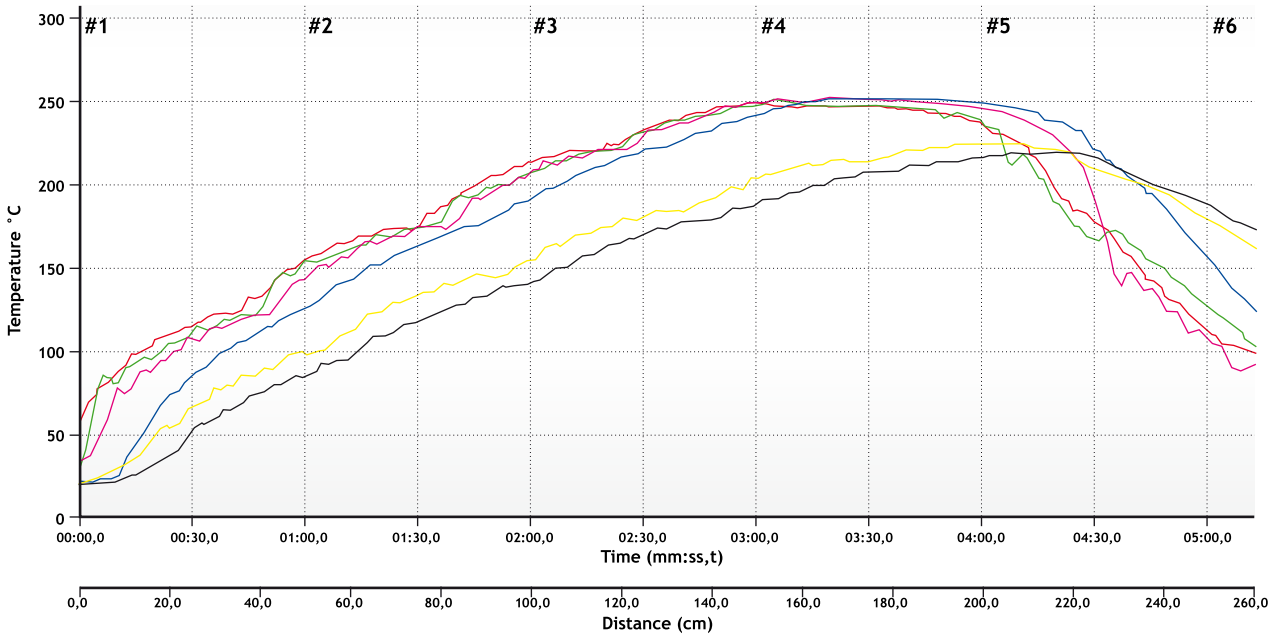
Zone	1T	2T	3T	4T	5T
Setpoint °C	150	200	250	275	255
Actual °C	150	200	249	273	254
Blower Power Setpoint %	80		80		80



Zone	1B	2B	3B	4B	5B
Setpoint °C	150	200	250	275	255
Actual °C	150	200	247	273	254

Start Run	On	Edge Conveyor	cm	Center Support	cm	Conveyor	cmpm
Heat	On	Setpoint	29.00	Setpoint	14.00	Setpoint	45.00

Soldering profile No. 1 used in research



Reflow Results

Probe	Positive Slope (°C/sec)	Positive Slope Time (mm:ss,t)	Rise Time (150,0 - 190,0 °C) (mm:ss,t)	Time Above Liquidus (217,0 °C) (mm:ss,t)	Peak Temperature (°C)	Delta T (°C)	Negative Slope (°C/sec)
#1 (°C)	4,50	00:00,0	00:43,0	02:08,0	249,0		-3,25
#2 (°C)	7,20	00:03,0	00:42,0	01:55,0	250,5		-3,14
#3 (°C)	3,68	00:16,0	00:43,0	02:06,0	252,0	32,0	-2,74
#4 (°C)	2,37	00:28,0	00:53,0	00:29,0	220,0		-1,37
#5 (°C)	2,36	00:18,0	00:50,0	00:49,0	224,5		-1,49
#6 (°C)	4,72	00:06,0	00:41,0	02:10,0	252,0		-7,61

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