

# Product data sheet

NO CLEAN SOLDERING PASTE

## easy print

**/Sn62 Pb36 Ag2/**

### 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

### Informacje techniczne

Properties	Results	Procedures
<b>Chemical</b>		
type of solder	Sn62Pb36Ag2	
classification of flux	REL - 0	J-STD - 004
paper chromatography test on Clfiz	satisfy (REL - 0)	IPC TM 650
<b>Physical</b>		
density	≈ 4,6 g/cm <sup>3</sup>	IPC-TM 650T
particle size	25-45 μm	IPC-TM 650T
tackiness	1,0 G/mm <sup>2</sup> after 24h	IPC J-STD - 005
printability	more than 8h	
<b>Electrical</b>		
SIR-IPC	> 2,6*10 <sup>9</sup> 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.

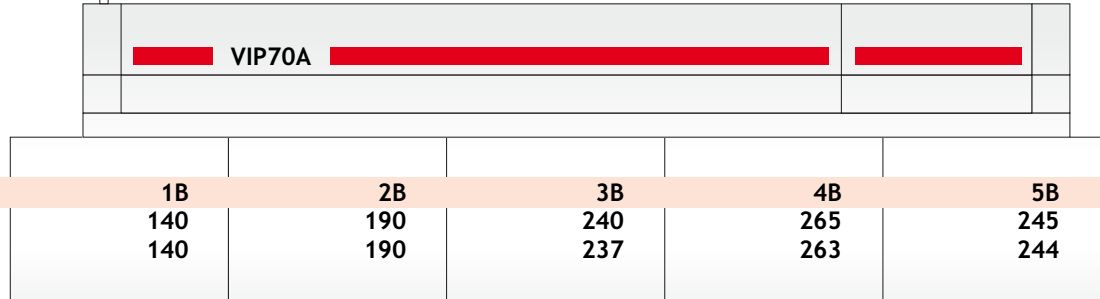
## Application requirements

Storage	Printing	Reflow	Cleaning
<ul style="list-style-type: none"> <li>■ store in temp. 3-7 °C for no longer than 6 months in tightly closed containers.</li> <li>■ the best (optimal) temperature of paste application: 23-26 °C</li> <li>■ max. temperature of paste application: 28 °C</li> <li>■ in order to avoid changes in rheology of the paste do not mix used with unused paste.</li> <li>■ 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</li> </ul>	<ul style="list-style-type: none"> <li>■ laser-cut stencils or electro-formed stencils:</li> <li>■ 100µm for pitch = 0.4mm</li> <li>■ 150µm for pitch &gt; 0.5 mm</li> <li>■ metal stencils are recommended</li> <li>■ squeegee travel speed in a printer: 25- 150 mm/sec</li> <li>■ squeegee pressure: 1.5- 3N at a cm of length</li> <li>■ amount of paste on a stencil: size of a roll rolling ahead of squeegee is 15-20mm</li> </ul>	<ul style="list-style-type: none"> <li>■ any soldering methods are allowed (air or nitrogen atmospheres)</li> <li>■ preheating: ramp-up temperature 1- 2,0 °C/s to 145-160 °C or max. 210- 220 °C for versions without plateau</li> <li>■ plateau phase (only for packages with high density assemblies having different mass) 145-160 °C for 60- 90s</li> <li>■ soldering - reflow phase: 30-90s above 180 °C</li> <li>■ cooling: gradient: 1-2 °C/s</li> </ul>	<ul style="list-style-type: none"> <li>■ as a rule a no-clean paste does not require cleanin</li> <li>■ however if cleaning is necessary it is recommended to use alcohol PCB cleaner.</li> </ul>

## Soldering procedure for profile No. 1

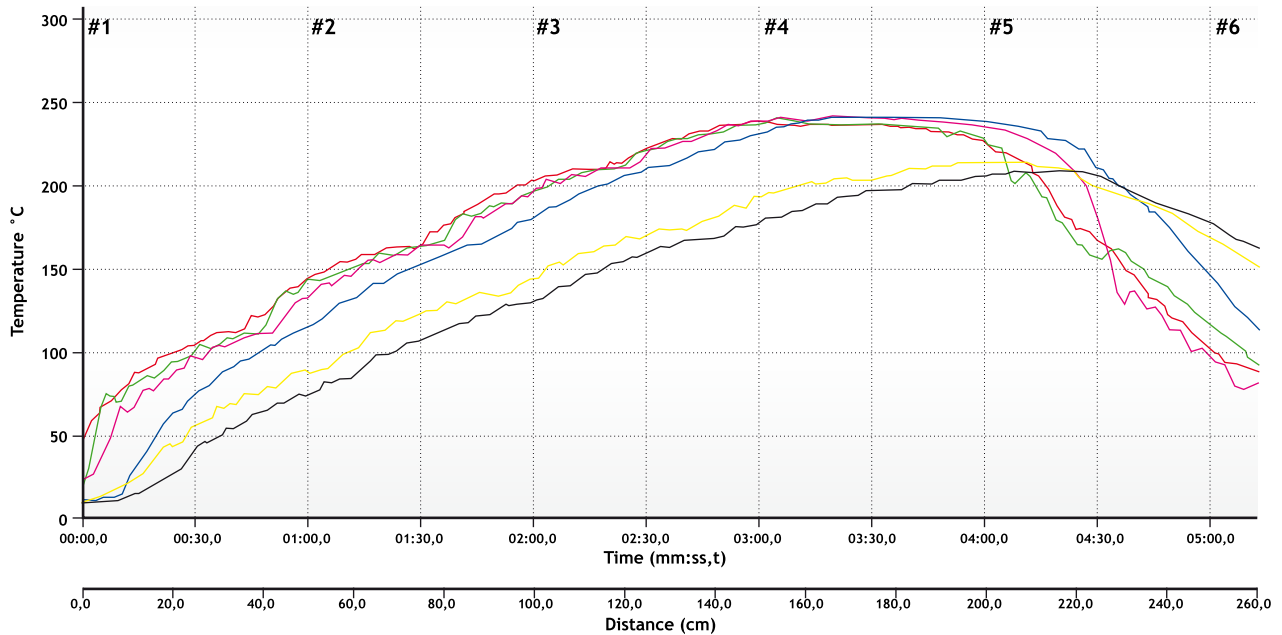
Zone	1T	2T	3T	4T	5T
Setpoint °C	140	190	240	265	245
Actual °C	140	190	239	263	244

Blower Power	80	80	80
Setpoint %			



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	239,0		-3,25
#2 (°C)	7,20	00:03,0	00:42,0	01:55,0	240,5		-3,14
#3 (°C)	3,68	00:16,0	00:43,0	02:06,0	242,0	● 32,0	-2,74
#4 (°C)	2,37	00:28,0	00:53,0	00:29,0	210,0	○	-1,37
#5 (°C)	2,36	00:18,0	00:50,0	00:49,0	214,5		-1,49
#6 (°C)	4,72	00:06,0	00:41,0	02:10,0	242,0	●	-7,61