

# Solder Paste "for High-Speed Printing"

Bringing stable performance for high-speed circuit board printing. Increased productive higher efficiency and cost reductions throughout the entire manufacturing process.

## TM-HP-S

Sn-Ag-Cu solders



1. Solid high-speed circuit board printing with a maximum squeegee speed of 150mm/sec, leading to better tact printing.
2. Cleaning has been made easier with a metal stencil that is less prone to clogging and smearing.
3. Increased tact-up for better balancing with the mounter, resulting in reduced labor all round.
4. The unit has the same high flux reliability and durability of existing paste (TM-HP).

Examples of application : High-speed circuit board printing, easier cleaning.

### Comparison of printability with different squeegee speeds (using degraded paste)

[Print conditions] -Printing machine used: HI GARD HG-600 (made by Hitachi Industries Co. Ltd. Company) -Squeegee speed: 25, 150mm/sec -Separation speed: 1.8mm/sec  
 -Squeegee material: made of Urethane (hardness 80°) -Print pressure: 1.4N  
 [Degradation condition] -10rpm, 32h -Machine used: Viscous mixing machine (25°C, humidity 85%) made by Malcom Co., Ltd.

Normal Printing (25mm/sec.)

High-speed Printing (150mm/sec.)

0.28mm Dot

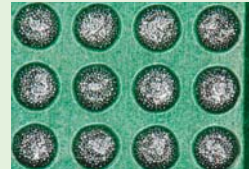
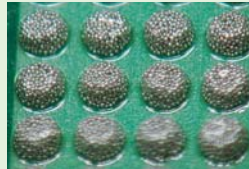
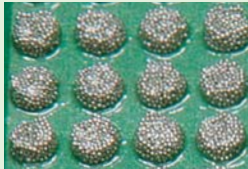
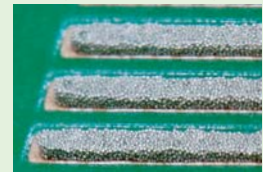
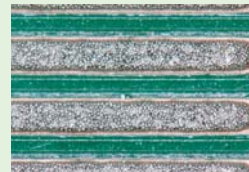
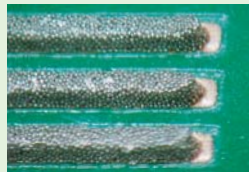


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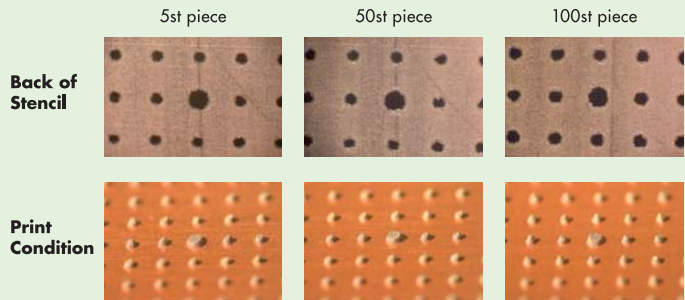
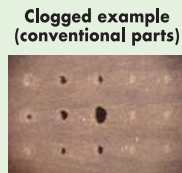
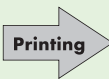
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0.40mm Slit



### Check of Clogging on back of Stencil and Print Condition after Continuous Printing

[Condition] Continuous printing of 0.3mm dots without cleaning. Perform check of clogging on back of stencil and print condition after printing 5, 50, and 100 pieces.  
 -Squeegee Speed: 100mm/sec. -Printing Pressure: 35x10<sup>-2</sup>N. -Squeegee Material: Metal squeegee. -Snap off Speed: 10mm/sec (Constant speed). -Clearance: -0.5mm. -Stencil thickness: 120µm.



#### Product name component for solder paste

(Example) LFM-48 W TM-HP-S

Alloy type; powder size; flux name

#### Solder paste products specification

Flux name	Alloy type	Powder size	Flux content	Viscosity	Melting point temperature
TM-HP-S	LFM-48 (Sn-3.0Ag-0.5Cu)	X, W	12.0%	170Pa·s	217-220°C

\*LFM-48 has been sublicensed for JP PAT No. 3027441 and US PAT No. 5527628. \*The standard container contains 500g.  
 \*Powder sizes are X: 25~45µm, W: 20~38µm. \*When your ordered product is out of stock, please contact our sales representative.