Solder Paste

Improved conventional Pb-free solder paste in various aspects, such as continuous printability, flux scattering, and higher temperature of pre-heating.

TM-HP

Sn-Ag-Cu solders

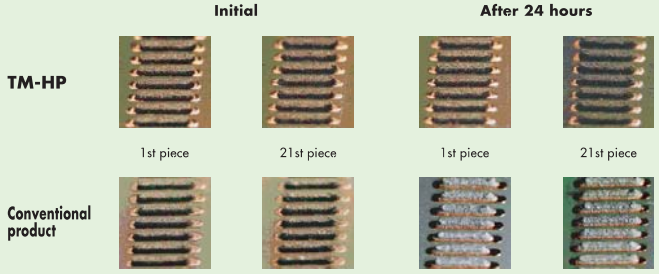
1. Good continuous printability; As TM-HP minimizes viscosity increase through time and enables astable supply.
2. Improved thermal damage of flux and ball surface oxidation. TM-HP develops fusion at minimum land and prevents the emergence of solder balls.
3. Reliability of flux is higher enough for this product to be used without cleaning.

Examples of application : Cell phones, personal computers, PDP, and DVD.

Continuous printability test (comparison)

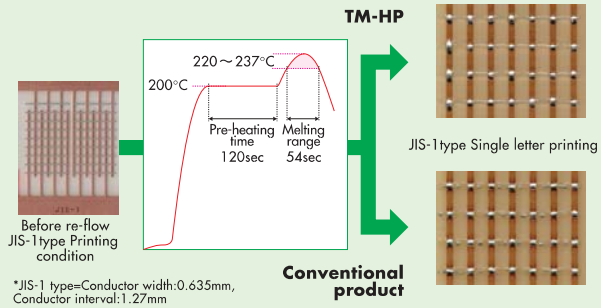
[Condition] Perform an eight-hour rolling test for three days (24 hours in total), then operate continuous printability test for 21 pieces and compare the print condition against conventional products.

- Printing Squeegee:Urethane (90 degree hardness) / Squeegee speed: 25mm per sec. / Mask: Nickel additive (t=125μm) / Substrate: Single-sided glass epoxy / Printing pressure: 1kgf per sq. m. / Separation speed of plate: 1 mm per sec. (constant speed)



High temperature pre-heating test (comparison)

[Condition] Re-flow with high temperature pre-heating at 200°C per 120sec. (in a air re-flow oven) and compare TM-HP and conventional products for dissolved conditions after single letter printing.



*JIS-1 type=Conductor width:0.635mm, Conductor interval:1.27mm

TM-TS

Sn-Ag-Cu solders

Good wettability and ball performance with high temperature pre-heating.
Reduces voids and has dramatic self-alignment effect.

Examples of application :
General Pb-free solder paste. The recommended peak temperature is over 230°C.

TM

Sn-Ag-Cu solders

Excellent spreading performance and longer stability.
Dramatic self-alignment effect.

Examples of application :
General Pb-free solder paste. The recommended peak temperature is over 230°C.

SPM

Sn-Ag-Cu solders

Result of collaborative development with a cell-phone maker. Significant reduction of flux scattering is compared to conventional products.

Examples of application :
General Pb-free solder paste. The recommended peak temperature is over 230°C. Soldering around junctions of gold flush substrates.

MHS-32

Sn-Zn-Bi solders

Great improvement in deterioration due to aging, while being stored or used.
Good wettability though it is RMA type.

Examples of application :
Low melting point Pb-free solder paste. Possible to re-flow at its peak temperature, 210-220°C.

IBL

Sn-Ag-Bi-In solders

Minimizes deterioration during continuous printing.
Suitable for Pb-free soldering on thermal damageable substrates.

Examples of application :
Low melting point Pb-free solder paste. For projectors and portable terminals.

INP

Sn-Ag-Bi-In solders

Solves deterioration problems during printing and mounting process.
Less tombstones and good wettability at lead terminals.

Examples of application :
Low melting point Pb-free solder paste. Possible to re-flow at its peak temperature, 210-220°C.

A75

Sn-Bi solders

Reduces scattered micro size solder balls, observed when Sn-Bi alloy system solder paste is used.

Examples of application :
Special low melting point Pb-free solder paste. For camera modules

Product name component for solder paste

(Example) LFM-48 W TM-HP

Alloy type; powder size; flux name

Solder paste products specification

Flux name	Alloy type	Powder size	Flux content	Melting point temperature
TM-HP	LFM-48 (Sn-3.0Ag-0.5Cu)	U、X、W	12.0%	217-220°C
	LFM-14 (Sn-3.5Ag-0.7Cu)			217-218°C
TM-TS	LFM-48 (Sn-3.0Ag-0.5Cu)	X、W	11.5%	217-220°C
	LFM-14 (Sn-3.5Ag-0.7Cu)			217-218°C
TM	LFM-48 (Sn-3.0Ag-0.5Cu)	X、W	11.5%	217-220°C
	LFM-14 (Sn-3.5Ag-0.7Cu)			217-218°C
SPM	LFM-48 (Sn-3.0Ag-0.5Cu)	X、W	11.0%	217-220°C
	LFM-14 (Sn-3.5Ag-0.7Cu)			217-218°C
MHS-32	LFM-31 (Sn-8.0Zn-3.0Bi)	X、W	12.0%	190-199°C
IBL	LFM-52 (Sn-3.5Ag-0.5Bi-3.0In)	X、W	11.0%	207-214°C
INP	LFM-70 (Sn-3.5Ag-0.5Bi-8.0In)	X、W	11.0%	194-206°C
	LFM-71 (Sn-3.5Ag-0.5Bi-4.0In)			205-212°C
A75	LFM-65 (Sn-58.0Bi)	X、W	12.0%	139°C

*LFM-48 and LFM-14 has been sublicensed for JP PAT No.3027441 and US PAT No.5527628. *LFM-70 uses powder licensed by JP PAT No.3040929. *LFM-52 and LFM-71 uses powder licensed by JP PAT No.2805595. *The standard container contains 500 g. Syringe containers can also be used. *Powder sizes are U:10~25μ ; X:25~45μ ; and W:20~38μ . *When your ordered product is out of stock, please contact our sales representative.

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