S3X58-HF1100 (Sn 3.0Ag 0.5Cu) Type 4

Multi-Feature Halogen-Free Lead-Free Solder Paste

One Single Formulation Provides Multiple High-Performance Characteristics!

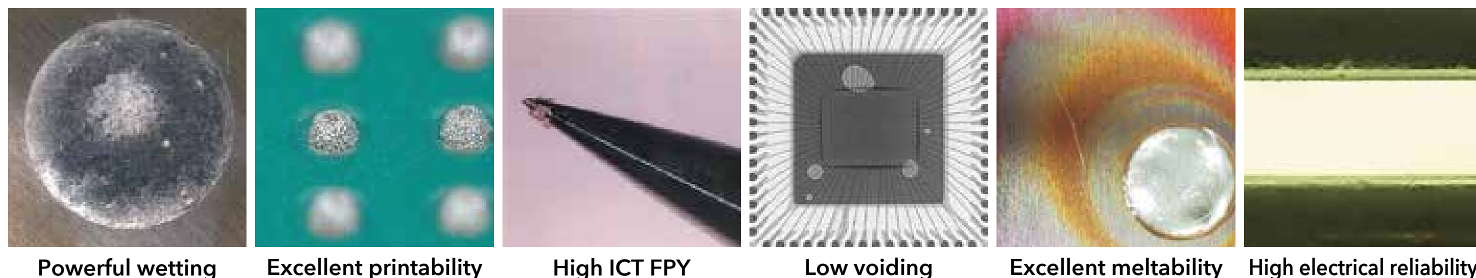
Advanced Core Technologies

■ Powerful Wetting Technique

New activator system inhibits chemical reaction with the solder during storage and even during pre-heating and exerts maximum activation strength during the time above liquidus temperature.
A stabilizer inhibits the reaction between activator and powder before heating, resulting in **viscosity stability**, **powerful wetting**, **low voiding** and **high insulation resistance**.

■ Flux Coagulation Technique

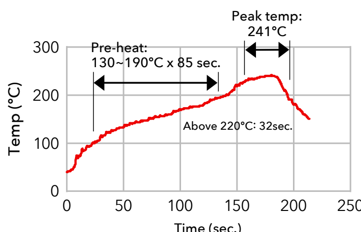
As solder powder melts, liquefied flux is designed to enhance its coagulation simultaneously. The coagulated flux evacuates from the molten solder swiftly, and leaves no flux on either the top or inside of the solder fillet.
This contributes to **minimizing flux splattering**, **improving ICT testability**, and **lowering the occurrence of voids**.



Powerful wetting | Excellent printability | High ICT FPY | Low voiding | Excellent meltability | High electrical reliability

Superior wetting and meltability

Newly developed powerful activator technology provided excellent solder spread not only on standard substrates, but also difficult to solder oxidized Cu, C7521 and Ni/Al substrates.

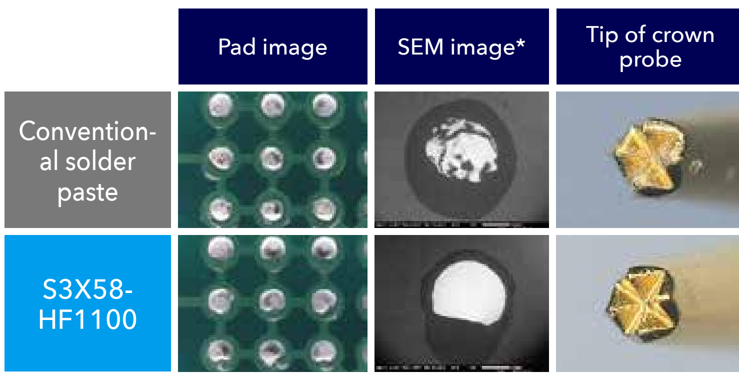


	Oxidized Cu	C7521	Ni/Al
S3X58-HF1100			

Improved first-pass yield

As minimal residue remains on the surface of the solder fillet, this ensures easy and secure pin contact.

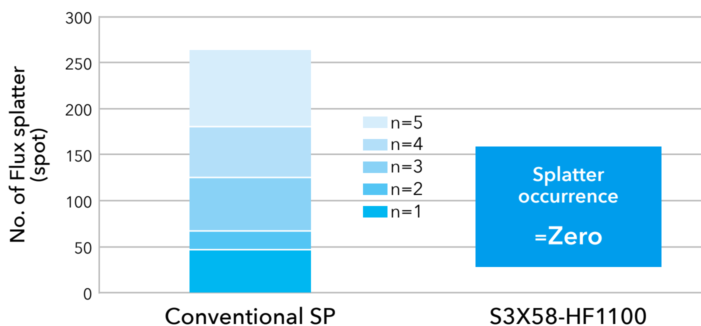
	Pad image	SEM image*	Tip of crown probe
Conventional solder paste			
S3X58-HF1100			



*SEM image: Black area -> Flux residue / White area -> No presence of flux residue

Minimal flux splattering

Material: Phosphorous deoxidized copper (C1220)
Stencil: 0.2mm thickness, 6.5mm diameter
No. of specimens: n=6
Reflow profile: See the profile above



Product name	S3X58-HF1100
Alloy Composition	Sn 3.0Ag 0.5Cu
Melting Point (°C)	217 - 219
Particle Size (μm)	20 - 38
Halide Content (%)	0
Flux Type	ROL0 (IPC J-STD-004B)
Flux Content (%)	11.7
Viscosity (Pa.s)	220
Shelf Life (<10°C)	6 months

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