

# NEWS RELEASE: New Product

## KOKI Company Limited

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## New Solder Paste with Consistently Low Voiding Property

KOKI's flux technique enables drastic reduction of solder voids

KOKI Company Limited (Tokyo, Japan) has released a new, ultra-low void lead free solder paste, **S3X58-G803** for SMT applications.

Voids remained inside the solder joint affect the joint quality and raise concerns such as fracture of the solder joint together with solder cracking and degrades the performance of the heatsink. As the usage of power transistor components in surface mount electronics is on the rise, the discharge of generated gas / voids during reflow has become a critical factor for such large sized components.

Newly introduced ultra-low void solder paste, **S3X58-G803**, takes three key approaches to reduce the occurrence of voids;

- Removal of oxides during preheating
- Powerful wetting / Pumping effect and
- Enhanced flux discharge

New void reduction technique adapted to S3X58-G803 enhances the discharge of flux gas from the molten solder, and effectively ensures reduction of voids in the solder joint. The product also excels in continuous and intermittent printability, and applicable to micro-components (0603 metric size chip) soldering.

### [Product Feature]

#### 1. Consistent low voiding under any circumstances

Many kinds of components are used in the surface mount assembly such as power transistors, QFNs, SOPs, BGAs, etc., and these components go on to printed circuit boards having various surface finishes such as OSP, ImSn, and ENIG. **S3X58-G803** is designed to remove oxide film before solder melts and quickly evacuating the flux from molten solder, enabling consistent low voiding regardless of the type of component, surface finish, or reflow profile applied.

#### 2. Excellent soldering quality balancing both powerful wetting and low voiding

A heat-resistant activator system in **S3X58-G803** remains highly active throughout the soldering process and enables to exert excellent wettability. This will result in fast and powerful wetting to the substrate and ultra-low voids in the solder joints.

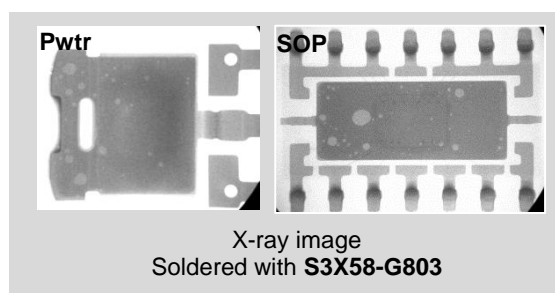
#### 3. Highly heat resistant activator effectively prevents Head-in-pillow defects

**S3X58-G803** shows much longer heat durability once the solder paste starts to melt. The results into the solder joints without the occurrence of head-in-pillow defects.

### [Product Outline]

Name	S3X58-G803
Composition	Sn 3.0Ag 0.5Cu
Melting point (°C)	217 - 219
Flux type	ROL0*
Particle size (µm)	20 - 38

\*According to IPC J-STD-004



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