For Immediate Release

Contact:
Nihon Superior Co., Ltd.
Global Sales Department
NS Bldg., 1-16-15 Esaka-Cho,
Suita City, Osaka,
564-0063 Japan
Tel: +81-(0)6-6380-1121
Fax: +81-(0)6-6380-1262
Web site: www.nihonsuperior.co.jp/english

Nihon Superior to Introduce TempSave during APEX 2021

OSAKA, JAPAN — February 2021 — Nihon Superior Co. Ltd., an advanced joining material supplier, is pleased to announce that it will exhibit its newly developed TempSave series during the 2021 IPC APEX Virtual EXPO, scheduled to take place March 9-11, 2021 online at www.ipcapexexpo.org. The company also will showcase its NozzleSave alloy along with SN100CV P608 and LF-C2 P608 solder pastes.

Nihon Superior will introduce its **TempSave™** series of low temperature soldering materials to address the industry's goals of reduced peak reflow temperature to reduce defects contributing to package warpage, reduce energy consumption during the reflow process, and avoid potential damage to temperature sensitive devices. **TempSave B58** is a eutectic SnBi alloy with a melting point of 139°C while **TempSave B37** is a ductile hypoeutectic SnBi alloy and does not contain Ag.

High bismuth containing alloys are known to be brittle and therefore poor in drop shock performance. However, TempSave B37 has outstanding drop performance, even dramatically outperforming SAC305. The halogen-free P610 flux medium is specifically designed for Bi alloys. The TempSave B37 P610 solder paste can be reflowed with a peak temperature of 190°C. Additionally, TempSave B37 is available in solid wire form.

The **NozzleSave S** solder alloy extends the life of selective soldering nozzles by 2X. As solder nozzles wear, the solder wave form from the nozzle and wave height are affected. By extending the life of the solder nozzle, the user experiences cost savings and process stability for improvement in soldering quality.

SN100CV® P608 is a completely halogen free, lead-free, no-clean solder paste. Unlike silver-containing alloys that derive their strength from a dispersion of fine particles of eutectic Ag_3Sn, SN100CV gains its strength from solute atoms in the tin matrix of the joint. Although silver-free, in tensile tests the SN100CV alloy matches the strength of SAC305 while maintaining a high level of resistance to impact loading. **LF-C2** is a high reliability lead-free alloy as it uses both dispersion and solid solution strengthening. With a liquidus temperature of 213°C it can be reflowed at a lower temperature than SAC305.

The P608 flux medium provides wetting comparable with that of halogen containing paste even though it is completely halogen-free. SN100CV P608 and LF-C2 both deliver excellent performance over a wide range of component types and process parameters.

Nihon Superior continues to offer solutions to the challenges facing the electronics industry, such as improvements in reliability, thermally stable joining, and lead-free die attach. For more information about Nihon Superior's new alloys, solder pastes and lead-free products, please visit us at www.nihonsuperior.co.jp/english.

About Nihon Superior Co., Ltd.

Nihon Superior was founded in 1966 when it began marketing unique flux products imported from the US. The company made its mark on society by gathering the most advanced soldering and brazing technologies and products from around the world, and supplying them to companies in the metal-joining industry. A turning point for the company came when it started developing its own soldering materials and with the success of its unique SN100C lead-free solder alloy Nihon Superior has become a major player in the global market. To support the growing demand for its products, Nihon Superior has established manufacturing and sales centers in Japan, China and other Asian countries, and the United States, and formed business partnerships with companies in other markets.

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Planning Sec., Public Relations & Planning Office