



For Immediate Release

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Nihon Superior Sets New Standards in Lead-Free Soldering Technology at APEX 2024

OSAKA, JAPAN —**March 2024** — Nihon Superior Co. Ltd., an advanced joining material supplier, will exhibit in Booth 1325 during the 2024 IPC APEX EXPO, scheduled to take place April 9-11, 2024 at the Anaheim Convention Center in California. Renowned for its commitment to innovation, Nihon Superior will present a range of groundbreaking products, including the SN100CV® P608 solder paste and the TempSave™ series of low-temperature soldering materials.

SN100CV® P608 sets a new standard as a completely halogen-free, lead-free, and noclean solder paste by Nihon Superior. In contrast to silver-containing alloys relying on a dispersion of fine particles of eutectic Ag3Sn for strength, SN100CV achieves its robustness from solute atoms within the tin matrix of the joint. Remarkably, in tensile tests, SN100CV matches the strength of SAC305 while retaining a high resistance to impact loading, offering exceptional performance in various applications.



For high-reliability applications demanding strength surpassing SAC305, Nihon Superior introduces the LF-C2 lead-free alloy. Leveraging both dispersion and solid solution strengthening, LF-C2 delivers superior strength. With a liquidus temperature of 213°C, it facilitates reflow at a lower temperature than SAC305.

The P608 flux medium ensures wetting comparable to halogen-containing pastes, despite being completely halogen-free. SN100CV P608 and LF-C2 exhibit outstanding performance across diverse component types and process parameters.

Additionally, Nihon Superior presents the TempSave™ series of low-temperature soldering materials, addressing industry goals such as reducing peak reflow temperature, minimizing

package warpage, lowering energy consumption during reflow, and protecting temperaturesensitive devices.

- TempSave B58: A eutectic SnBi alloy with a low melting point of 139°C.
- TempSave B37: A ductile hypoeutectic SnBi alloy without Ag, offering exceptional drop
 performance, surpassing SAC305. The P610 flux medium, specifically designed for Bi
 alloys, ensures halogen-free compatibility. The TempSave B37 P610 solder paste can be
 reflowed with a peak temperature of 190°C. Additionally, a high-speed jetting paste
 version, TempSave B37 P611, provides consistent dot sizes.

Visit Booth 1325 at the 2024 IPC APEX EXPO to explore Nihon Superior's latest alloys, solder pastes, and lead-free products. For more information, please visit 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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