

TAMURA ELSOLD SN100 PS – Purity Selective

- Perfect for Selective Soldering Processes
- Factor 20 higher purity due to special cleaning process “freshening”
- Compatible with special nozzle coatings
- Optimized Ni-Microalloying
- Good wetting and fluidity properties, less soldering defects and bridging
- Smooth and shiny surface
- Reduced dross formation, copper leaching, iron dissolution and wear of the soldering equipment

Physical properties and composition

	ISO 9453 alloy 403	SN100 PS
Sn		Remaining
Cu		0.5-0.9
Ni	0.02-0.08	0.02-0.03
Fe	<0.02	<0.001
Melting point [°C]		227
Density [g/cm ³]		7.32

- SN100 PS fulfills all requirements of ISO 9453:2014-12, which is also used for TAMURA ELSOLD SN100 MA-S alloys and SN100 C competitive alloys
- Consequently, all physical and mechanical properties and reliability data for SN100 MA-S are same or better than for ISO9453/alloy 403//SN100 MA-S//SN100C
- Typical level of impurities is significantly lower (factor 20) for SN100 PS due to freshening process compared to ISO9453/alloy 403// SN100C
- Available also as SN100 PS Refill (Sn99.8Cu0.2Ni), SN100Ag0.3 PS (SAC0307Ni), SN100Ag1 PS (SAC107Ni) and SN100Ag3 PS (SAC305Ni),

Technical Information – Alloy Development and Freshening Process for Super Clean Alloys

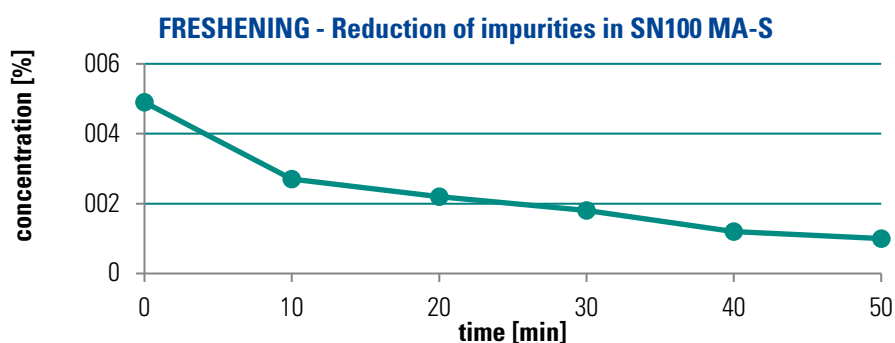
In addition to a complete range of high quality solder alloys, TAMURA ELSOLD offers a world class innovation - the TAMURA ELSOLD SN100(Ag) MA-S and TAMURA ELSOLD SN100(Ag) PS alloys. TAMURA ELSOLD SN100(Ag) MA-S are established worldwide as solder alloys for lowest dross formation and best soldering properties in wave soldering processes. For selective soldering processes, on the one hand, the requirements with regard to dross formation are less critical due to the usually better inert gas atmosphere, on the other hand, the use of microalloying elements such as P and Ge is limited due to possible reactions of the nozzle coatings and their increased wear.

Keeping this in mind and using the technology of SN100 MA-S, TAMURA ELSOLD SN100 PS alloys are a perfect solution for selective soldering processes. P and Ge are not needed and used here, but the advantages of nickel microalloying - in a slightly "softer" quantity - and especially the unique freshening process for producing super clean solder alloys.

Technical Product Information

TAMURA ELSOLD SN100 PS – Purity Selective

These solders are manufactured in a revolutionary process called “Frischen” or “Freshening” which can be described as an ultra-grade cleaning operation. This proprietary technique results in a highly pure and highly stable solder alloy with a much lower tendency to oxidize during soldering. Typical solder defects such as bridging and solder spikes are almost non-existent. Compared with Sn99.3Cu0.7, our new lead free micro-alloy solder boasts the lowest amount of dross formation while soldering, thereby making it extremely economical. The special manufacturing process of SN100 MA-S and SN100 PS eliminates unwanted impurities like iron, leading to a highly pure and stable alloy which shows a three times smaller tendency to oxidize. This proprietary manufacturing process guarantees an outstanding level of purity without contamination. Such alloys show a high stability and have a low viscosity thereby reducing typical solder defects such as solder peaks and solder bridging. The soldering results are out-standing and quality fluctuations are kept to an absolute minimum.



Application

Typical soldering temperatures are up to 320 °C for selective soldering.

Forms of Supply

Description	Dimensions [mm]	Weight /Piece
1-kg bar	20 (W) x 20 (H) x 335 (L)	1 kg
Triangular bars	8 (W) x 10 (H) x 400 (L)	Approx. 200 g
Clippings	8 (W) x 10 (H) x 30 (L)	Bulk
Solid wires	Various diameters 0.5 – 6	On spools of 500 g, 1 kg, 4 kg, 15 kg

Storage/Shelf Life

The material can be stored for a minimum of 60 months from the date of manufacturing. Care should be taken, however, to store the material in a clean environment. Using the material beyond the official shelf life is possible without any problem in most cases. However, this should be confirmed by adequate trials before actual usage.

Health and Safety

ELSOLD SN100(Ag) PS solder alloys are not considered to be harmful. Information relating to health and safety should be taken from the respective safety data sheet.

The information contained herein is based on technical data that we believe to be reliable and is intended for use by persons having technical skill, at their own risk. Users of our products should make their own tests to determine the suitability of each product for their particular process. TAMURA ELSOLD will assume no liability for results obtained or damages incurred through the application of the data presented.