



SOLDER TIN SN100C3 / SN100C4

Lead-free alloys for electronics

PRODUCT DESCRIPTION

Stannol SN100C3 and SN100C4 are micro-alloyed which helps prevent copper dissolution during lead-free high-temperature soldering and tinning.

PRODUCT PROPERTIES

The product offers the following advantages:

- **melting range 227-310 °C (SN100C3)**
- **melting range approx. 227-350 °C (SN100C4)**
- **good wetting properties**
- **finer-grained and smoother surface**
- **reduced dissolution rate compared to Ecoloy alloys**
- **no problematic disposal of lead-containing waste materials with all Stannol SN100C alloys**

APPLICATION

As with lead-free Ecoloy alloys, it is necessary to adjust the temperature profiles on the production systems when switching from lead-containing to lead-free processes. When switching from Ecoloy TC300 (S-Sn97Cu3) to SN100C3, the settings remain the same.

The physical properties are not changed by the micro-alloy additives. The differences between Ecoloy variants and micro-alloyed SN100C variants are as follows:

- **the solder joint is finer-grained and therefore appears smoother**
- **reduced dissolution whereby far less copper is removed**
- **longer service life of solder baths due to less copper build-up**

PRODUCT AREA

Stannol SN100C3 and SN100C4 are lead-free alloys of the tin/copper system for high-temperature use in solder baths and wave soldering (>350 °C). Due to the high dissolution rate of copper, there is a risk that the liquidus temperature of the solder will be greatly increased and that thin wires and layers will be dissolved within a short time.

Micro-alloyed SN100C3 and SN100C4 reduce the dissolution rate and thus prevent the reduction of the copper cross-section of the wire. If dross formation is a problem, lead-free deoxidising pellets can be added to keep the surface bright.

DELIVERY FORMS

- wire (massive)
- triangular bars

HEALTH AND SAFETY

Read the safety data sheet and observe safety measures before first use.

DISCLAIMER

The above values are typical and represent no form of specification. The Data Sheet serves for information purposes. Any verbal or written advise is not binding for the company, whether such information originates from the company offices or from a sales representative. This is also in respect of any protection rights of third parties, and does not release the customer from the responsibility of verifying the products of the company for suitability of use for the intended process or purpose. Should any liability on the part of the company arise, the company will only indemnify for loss or damage to the same extent as for defects in quality.