# Technical Product Information

## SN100(Ag) MA-S Cored Solder Wire Z0 & Z1

- Micro-alloyed, lead-free alloy of high purity, with very low oxide content and high oxidation resistance
- Fine grained & shiny solder joints
- Lowest copper leaching
- Reduced erosion of solder tools
- Fast wetting
- Uniform material usage in the whole process chain with SN100 MA-S ingots, bars, solid wires and solder pastes
- Lowest, bright, transparent and non-corrosive residues
- No odor nuisance
- Clean tips
- Classification: Z0: ORL0
  Z1: ORM1

### TAMURA ELSOLD SN100(Ag) MA-S

SN100(Ag) MA-S alloys contain the micro-alloying elements Nickel, Germanium and Phosphor. Additionally they are produced in a special process, called 'freshening'. This proprietary technique results in a highly pure and highly stabile solder alloy with a much lower tendency to oxidize during soldering. Both the Sn-Cu alloy SN100 MA-S (SC07) and silver containing alloys SN100Ag0,3 MA-S (SAC0307), SN100Ag1 MA-S (SAC107) and SN100Ag3 MA-S (SAC305) are available.

| | | ELSOLD SN100 MA-S | ELSOLD SN100Ag0,3 MA-S | ELSOLD SN100Ag1 MA-S | ELSOLD SN100Ag3 MA-S |
|---|---|---|---|---|---|
| Composition [wt.-%] | Sn | 99.3 | 99.0 | 98.3 | 96.5 |
| | Ag | | 0.3 ± 0,2 | 1.0 ± 0.2 | 3.0 ± 0.2 |
| | Cu | | 0.7 ± 0,2 | | 0.5 ± 0.2 |
| | Ni | | 0.03 - 0.06 | | |
| | Ge | | 0.003 - 0.007 | | |
| | P | | 0.001 - 0.005 | | |
| Melting range [°C] | | 227 – 230 | 217 – 227 | 217 – 223 | 217 |
| Density [g/cm³] | | 7.32 | 7.33 | 7.36 | 7.38 |

### ELSOLD Fluxes Z0 and Z1 for Cored Solder Wire

According to the high quality of the SN100 MA-S, special high quality fluxes were developed. Both the halide free ORL0 flux Z0 and (for materials and surfaces, which need a higher activity) the ORM1 flux Z1 offer lowest, bright, transparent and non-corrosive residues. Especially for manual soldering and rework processes the low and pleasant odor and the health friendly ingredients are further advantages.

### Packaging / Spools

Neon-yellow spools at 500 g and 1000 g with single core solder wire:

| Diameter [mm] | 0.30 | 0.50 | 0.75 | 1.00 | 1.20 | 1.50 |
|---|---|---|---|---|---|---|
| Tolerances [mm] | ± 0.03 | ± 0.05 | ± 0.05 | ± 0.05 | ± 0.05 | ± 0.05 |

### Shelf Life

We guarantee a minimum shelf life of 36 months if the material is properly stored in a clean environment. Most likely, ELSOLD cored wires can be used without problems long beyond this period. However, the user should find this out by making appropriate test before using the solder.

**Important information**: The above information was put together based on the data available to the producer at the time of print. The technical data contained herein are consistent with the properties of the material but should not be used for the preparation of specifications as it is intended for reference only.


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