



STANNOL®

Wenn's ums Löten geht
When it's about soldering
Quand il s'agit du soudage

Technical Data Sheet

STANNOL® solid solder wire

- Precision diameter wire free from surface irregularities
- High purity solder for high performance soldering
- **Lead-Free** alloys according to WEEE and RoHS

Description

STANNOL®'s precision-made solid solder wires are drawn through wire drawing machines to the precise diameter free from surface irregularities. This is particularly important when the solder is to be applied through an automatic feed mechanism. Our solid solder wire is manufactured on the same machines we use for our well known flux-cored solder wire with the entire attendant Quality Control.

Application

Filling small solder pots or topping up the level of large solder baths in selective soldering equipment are some of the major usages of solid solder wire. By feeding solid solder wire into a solder bath slowly as the solder is used, a convenient means is provided of automatically topping up the level without suddenly reducing the operating temperature.

Furthermore there are still some applications where solid solder wire plus separate flux is more advantageous compared with flux-cored solder wire. When for example joining metal parts where exceptional capillary penetration is required of the solder, it is necessary to apply separate flux paste or liquid flux in the gap before assembling the parts. When the solder wire is melted into the heated joint gap, it will then be soaked into the gap by capillary forces aided by the flux, wetting the internal joint surfaces.

Purity of Metals

STANNOL® solid solder wires are manufactured from high purity metals. Our lab found out that alloys with a lower purity level affect the flow characteristics and wetting forces of the molten solder. The soldering speed decelerates, the quantity of solder per solder joint increases, and the adhesive power is reduced. Therefore it is clear that the cheapest solder, which is only produced according to common standards regarding the permitted impurities, is not necessarily the most economic in terms of consumption of solder wire, productivity and reliability.

Quality Control

STANNOL has always aimed to supply products of guaranteed reliability. This cannot be achieved without process control and Q.C. testing.

All products wires are made with tested discrete batches of alloys. The batch number of the alloy appears on every reel and shipping carton. If you have already used the solder, our computer can identify the batch number of a delivery, and we can give you further technical information.

Supply Forms

STANNOL® solid solder wires are available in a wide range of alloys, diameters and reel sizes.



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Standard Alloys*

Lead-Containing	
Alloy / Composition	Melting Point °C
S-Sn63Pb37	183
S-Sn60Pb40	183-190
S-Pb60Sn40	183-238
S-Pb50Sn50	183-215
Pb75Sn25	183-265
Pb92Sn8**	280-305
S-Pb93Sn5Ag2**	296-301

Lead-Free (ECOLOY® Series):		
Alloy	Composition	Melting Point °C
ECOLOY® T**	Sn99.9	232
ECOLOY® TC	S-Sn99Cu1	227
ECOLOY® TC300**	S-Sn97Cu3	227-310
ECOLOY® TS**	S-Sn96Ag4	221
ECOLOY® TSC	S-Sn95Ag4Cu1***	217
ECOLOY® TSC305**	S-Sn96Ag3Cu1	217-220
ECOLOY® TS300	S-Sn97Ag3	221-224
ECOLOY® TSC263**	Sn97.1Ag2.6Cu0.3	217-224
ECOLOY® TSC0307**	S-Sn98Cu1Ag	217-227

Lead-Free (FLOWTIN® Series):		
Alloy	Composition	Melting Point °C
FLOWTIN® TC	S-Sn99Cu1****	227
FLOWTIN® TC300**	S-Sn97Cu3****	227-310
FLOWTIN® TSC	S-Sn95Ag4Cu1****	217
FLOWTIN® TSC305**	S-Sn96Ag3Cu1****	217-220
FLOWTIN® TSC0307**	S-Sn98Cu1Ag****	217-227

* Complying with ISO 9453:2006 and/or internal specifications.

** These alloys are subject to minimum order quantities!

*** The use of this solder can mean that solder joints / soldered parts on products, which are destined for export to the USA, can become patent-protected and therefore liable to licence fees.

As a licence holder, we can discharge the royalties for our clients. Please contact us.

**** Complying with ISO 9453:2006 with micro additives <0.05%.

Other alloys are available on request.

Health and Safety

Before using please read the material safety data sheet carefully and observe the safety precautions described.

The mentioned values are typical and represent no form of specification. The Data Sheet serves for information purposes. Any verbal or written advice 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.