



STANNOL®

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

Lead-free Soldering with STANNOL® FLOWTIN®

The STANNOL® FLOWTIN® lead-free solders are new developed alloys which exhibit advantageous properties in comparison with standard lead-free solders.

The specific micro-additive formulation gives extended features:

- copper: reduced dissolution – longer durability of the solder bath – nearly no enrichment of copper – less analyses – extended contact time possible – optimum for lead-free HAL-surfaces
- iron: reduced dissolution – lifetime of solder tips tripled – higher soldering temperature possible – solder pots last longer
- shinier surfaces – easy optical inspection (Sn/Cu is comparable with Sn/Pb)
- micro-alloyed FLOWTIN®-SnAgCu without license fees to Japan and USA
- micro-alloyed – finer microstructure – improved surface texture of the lead-free solder joint – reduces micro cracks
- meets all demands of EU directives ROHS and WEEE
- applicable for all soldering processes: wave – selective – lead-free HAL boards – hand-, automatic- and reflow-soldering
- optimum wetting speed

Following **lead-free** alloys are available as **FLOWTIN®**:

Alloy	Composition	Melting point °C
FLOWTIN® TC	Sn99Cu1+ML ^{*)}	227
FLOWTIN® TSC	Sn95.5Ag3.8Cu0.7+ML ^{*)}	217
FLOWTIN® TSC305**)	Sn96.5Ag3.0Cu0.5+ML ^{*)}	217-223
FLOWTIN® TSC263**)	Sn97.1Ag2.6Cu0.3+ML ^{*)}	217-224

^{*)} ML = micro-additive

^{**) These alloys are subject to minimum order quantities!}

Products from the FLOWTIN® Series

Solder Bars and Ingots

The alloys listed above are available as bars and ingots with hanger hole.

Solder Wires

Solid wires as well as flux cored solder wires with **FLOWTIN®** lead-free alloys were intensively tested in our laboratory and approved by our customers. Following types from the established STANNOL® solder wires are considered best for lead-free application:

solder wire	DIN EN 29454-1 EN 61190-1-1	flux content	number of cores	standard alloys
KS100	1.2.3 RELO (halide free)	3.0%	1	FLOWTIN® TC FLOWTIN® TSC
KS115	1.2.2 REM1 (halide containing)	3.0%	1	

Compared with our standard lead-free solders, the working temperatures can be maintained. Compared with lead-containing alloys however, the tip temperature of the soldering iron should be approx. 30°C higher. Furthermore a higher power of the soldering iron or soldering station (80W) is recommended.

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