



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 newly 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
- optimum wetting speed

Following lead-free alloys are available as FLOWTIN®:

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*	217-223
FLOWTIN® TSC263**	Sn97.1Ag2.6Cu0.3*	217-224
FLOWTIN® TSC0307**	S-Sn98Cu1Ag*	217-227

*) Complying with ISO 9453:2006 and/or internal specifications with micro additives <0.05%.

**) These alloys are subject to minimum order quantities!

NEW: FLOWTIN® UPGRADE-PACK

- Fast and low cost changeover of lead-free standard alloys to micro-alloyed solders of the FLOWTIN® series
- All FLOWTIN® advantages without expensive exchange of the complete solder bath

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	IEC 61190-1-3 / DIN EN 29454-1	flux content	no of cores	standard alloys
KS100	REL0 / 1.2.3 (halide free)	3.0%	1	FLOWTIN® TC FLOWTIN® TSC FLOWTIN® TSC305
KS115	REM1 / 1.2.2 (halide containing)	3.0%	1	
HF34	ORM0 / 2.2.3 (halide free)	1.6%	1	FLOWTIN® TSC305 FLOWTIN® TSC0307
Kristall 400	REL0 / 1.2.3 (halide free)	2.2%	1	FLOWTIN® TC FLOWTIN® TSC FLOWTIN® TSC305 FLOWTIN® TSC0307
Kristall 511	REM1 / 1.2.2 (halide containing)	3.0%	1	

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