

# SOLDER ECOLOY TC300

Lead-free alloy for electronics

## DESCRIPTION

Stannol Ecoloy TC300 (S-Sn97Cu3) is a lead-free solder according to DIN EN ISO 9453 (alloy no. 402) to eliminate the usage of conventional tin/lead alloys in the existing production processes of electronics assembly. Stannol Ecoloy TC300 assures that lead-free assemblies can be produced according to WEEE and RoHS when lead free PCBs and components are in use.

## CHARACTERISTICS

The product offers the following advantages:

- Pure tin-copper alloy
- Patent-free alloy - no royalties
- Inexpensive – silver-free
- No problematic disposal of waste materials containing lead
- Ideally suited for use at higher soldering temperatures 350°C and higher

## APPLICATION

The solder joints made with Ecoloy TC300 will be comparable in all aspects to solder joints made with Sn/Pb solders. This alloy is mainly used for tinning of wire strands.

## PHYSICAL PROPERTIES AND DATA

GENERAL PROPERTIES	ECOLOY TC300
Melting Point/Range, °C:	227 - 310
Density, g/cm <sup>3</sup> :	7,3
Brinell Hardness, HB:	11

## RECOMMENDED CONDITIONS FOR USE

**Immersion tinning:** The use of Ecoloy TC300 solder requires a solder bath temperature of approx. 350 to 450°C. Depending on the stranded wire, you have to determine the optimum yourself. Higher temperatures might be used.

**Solder flux:** In principle, fluxes such as Stannol AK-1 are suitable for the lead-free soldering process of cable tinning. The solid content should not be too low, as due to the increased working temperature a better activity or temperature stability is of enormous advantage. For the tinning of enameled copper wires we recommend rosin containing fluxes like Stannol 500-6B or 500-17/1.

## **SUPPLY FORMS**

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Triangular bars, Solder Wire (massive)

## **HEALTH AND SAFETY**

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

## **NOTICE**

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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.