



Product Information

Solid wire FELDER-ISO-Tin[®] “Sn99Ag+”

Lead-free solder wire for selective soldering units

FELDER-ISO-Tin[®] „Sn99Ag+“

Sn99Cu0.7Ag0.3NiGe according EN ISO 9453

Item No.: 551481....

All information about our products is the result of our long standing experience which we would like to pass on to our customers as application support. However, as we do not have any influence on the application of the works carried out with our products, please see the warranty claims in our conditions of sale because our liability is limited.

This product information does not constitute warranted properties.

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Application

Lead-free soldering in selective soldering units with automatic solder level regulation.

Properties

Beside the well-known advantages of Ni-endowed solders this alloy reaches by adding of germanium improved wetting qualities on all common surfaces in the electronic production and lowest dross formation in comparison to all other lead-free solders. A special advantage lies in the extremely low de-alloying rate with copper (in comparison to common SnAgCu-alloys up to 5 times lower). The low addition of silver of 0,3 % in **Sn99Ag+** has no negative influence on the corrosion effect on stainless steel parts. Furthermore, this Ag-addition leads in comparison to SnCuNi-alloys, additionally to a lowering of the working temperature, an improved hole filling in THT applications and to an improved wetting of soldering joints.

Metallic composition	99 % Sn, 0,7 % Cu, 0,3 % Ag, 0,06 % Ni, 0,01 % Ge
Melting range/-point in °C	217 - 227
Electrical conductivity in m/Ωmm² at 25° C	2,5 x 10⁶
Specific weight in g/cm³	7,34

Recommended soldering temperatures:

Wave soldering: 260 – 275° C

Selective soldering: 280 – 320° C

Benchmarks / Limits according EN ISO 9453

element	Sn	Cu	Ag	Ni	Ge	Pb
content (%)	Rest	0.7 ± 0,2	0.3 ± 0,1	0,06 ± 0,01	0.010 – 0.015	max. 0.05

element	Al	As	Bi	Cd	Fe	Sb	Zn
content (%)	max. 0.001	max. 0.03	max. 0.05	max. 0.002	max. 0.02	max. 0.05	max. 0.001

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Delivery Forms

Wire diameter: 0,5 - 5,0 mm Ø (other wire diameters are deliverable on request)

Standard spool sizes: 0,05 - 15,0 kg (special spools are deliverable on request)

Advices

Lead-free FELDER ISO-Tin[®] electronic solders do not contain any substances for which there are restrictions in Directive 2011/65/EU (RoHS II).

In order to balance the entry of copper in the lead-free alloy Sn99Ag+ in wave soldering and selective soldering units we recommend „Sn99Ag+ Refill“. A regular analysis of the solder bath is essential.

Other alloys are included in our standard delivery program.

Storage

Stored at constant room temperature infinitely durable.