Product Information

FELDER-ISO-Tin® - LEAD-FREE, Sn98Ag+

Lead-free solder alloy for wave, selective and dip soldering units, in compliance with RoHS 2011/65/EU; according to Fuji-Pat.-No. DE19816671C2, US6179.935, JP3296289
Sn98.1Ag1.2Cu0.7NiGe according to DIN EN ISO 9453:2014 Sn98.3Ag1Cu0.7

Item No. 551272…

Application

Used for lead-free soldering processes in the industrial assembly production, high temperature applications e. g. in the automotive industry (good thermal shock resistance at high temperatures, continuous temperature resistance at least up to 120° C).
Usable in older wave soldering units, whose pots and nozzles are made of stainless steel and do not use protective gassing. The experiences of our customers shows that most applications can be done without inert gas.

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 is 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 1.2 % in **„Sn98Ag+“** has no negative influence on the corrosion effect on stainless steel parts. Furthermore, this Ag-addition additionally leads to a lowering of the working temperature, an improved hole filling at THT applications, to an improved wetting of the soldering joint and an improved metal structure in comparison to SnCu and SnCuNi-alloys.

Metallic composition:	98 % Sn, 1.2 % Ag, 0.7 % Cu, 0.06 % Ni, 0.015 % Ge
Melting range/-point:	217° - 222° C
Specific weight:	7,34 g/cm³
Electrical conductivity at 25° C:	7,5 m/Ωmm²
Recommended soldering temperatures:	Wave soldering: 255 – 265° C Selective soldering: 280 – 300° C

Composition and max. impurities acc. to EN ISO 9453:2014

Sn	Cu	Ag	Ni	Ge	Al	As	Au	Bi	Cd
Rest	0.7±0.2	1.2±0.2	0.06±0.01	0.01-0.015	0.001	0.03	0.05	0.08	0.002

Fe	Pb	Sb	Zn
0.02	0.07	0.1	0.001

*The maximum lead content in FELDER-Electronic solders is 0.05 % (standard requirement 0.07 %).

 State: 05/19

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Advices

Certainly it is possible to “upgrade” your SnCu bath to our **FELDER-SAC-NiGe-electronic solders Sn99Ag+®, Sn98Ag+®, Sn96Ag+® or Sn95Ag+®** at any time by adding a silver concentrate. In this way you are able to reduce your soldering temperature, increase the filling grade of vias and advance the wetting.

An „upgrade“ to **FELDER SAC-NiGe-electronic solders** is possible step by step so that you can determine the perfect silver content for your application by yourselves (0,3%, 1,2%, 3,0% or 3,8%)

Lead-free FELDER-ISO- Tin® Electronic Solders contain no substances for which exist restrictions in the directive 2011/65/EU („RoHS II“).

Stored dry and dust-free the material is infinitely durable.

Delivery Advices and Forms

Each delivery is furnished with a batch-number. On request a certificate of analysis will be enclosed. The values of the analysis will be determined by emission spectrometer.

250 g triangular rods, 400 mm long
1,0 kg rods, 330 x 20 x 20 mm
3,5 kg blocks with hanging hole, 545 x 47 x 20 mm

Also deliverable as massive wire on spools for automatic feeding and as wire cuts for first filling.

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