



Product Information

FELDER-ISO-Tin[®] Lead-free, "Sn96Ag+"

Lead-free solder for wave and selective soldering units

FELDER-ISO-Tin[®] -Lead-free, "Sn96Ag+"

Sn96.5Ag3.0Cu0.5NiGe according to Fuji-Pat. No. DE19816671C2, US6179.935, JP3296289

Item No.: 551276....

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.

Application

Lead-free solderings in wave and selective soldering units. A usage in older wave soldering units is also possible, whose pots and nozzles are made of V2A and do not have protective gassing. The experience of our customers shows that most applications can be done without inert gas.

Properties

Beside the well-known advantages of Ni-endowed solders our 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 corrosion appearance with copper (in comparison to common SnAgCu-alloys up to 5 times lower). Furthermore, this Ag-addition leads in comparison to SnCuNi-alloys, additionally to a lowering of the working temperature and to an improved metal structure of the soldering joint.

Alloy	Sn96Ag+ (Sn96,5Ag3,0Cu0,5NiGe)
Melting temperature in °C	217 - 219
Soldering temperature in °C	255 - 265°C
Density in g/cm ³	7.38
Tensile strength in N/mm ²	56
Extension in %	68
Hardness Hv	18
Creep strength at 80° C and 1200 g in hr	> 3000
Thermal expansion factor in 1/°C	23.6 x 10 ⁻⁶

Analysis / tolerances

Element	Sn	Cu	Ag	Ni	Ge	Pb	Al
Content (%)	rest	0.5 ±0,2	3.0 ±0,2	0.05 - 0.07	0.01 – 0.015	max. 0.07	max. 0.001

Element	As	Bi	Cd	Fe	Sb	Zn
Content (%)	max. 0.03	max. 0.1	max. 0.002	max. 0.02	max. 0.1	max. 0.001

acc.: DIN EN 9453:2014

FELDER-ISO-Tin® Lead-free, "Sn96Ag +"

Delivery Forms

450 g (\pm 30 g) rods, 330x20x10 mm,
3.5 kg – blocks with hanging hole 545 x 47 x 20 mm.

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

Advices

Other alloys are included in our standard delivery program.