FELDER seit 1979 LÖTTECHNIK

Product Information

FELDER-ISO-Tin® "SN100^{-403}CS+"

Sn99,225Cu0,7Ni0,05Ge0,025 based on DIN EN ISO 9453

Lead-Free FELDER-ISO-Tin® electronic solders do not contain any substances which are subject to restrictions according to directive 2011/65/EG („RoHS“).

Item-No.: 561296 …

All information about our products are 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

FELDER-ISO-Tin® "SN100^{-403}CS+" is a variant of the lead-free solder "**SN100^{-403}C"** with a content of 250 ppm (0.025 %) of germanium. It's perfectly matched for lead free soldering in wave and selective soldering units. Due to the higher germanium content, "**SN100^{-403}CS+"** is especially suitable for applications without nitrogen. The experience of our customers shows that most applications can be done without inert gas. The best value for Germanium in solder bath should be between 100 and 200 ppm.

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.
ISO-Tin® "SN100^{-403}CS+" has a wide soldering temperature window and is applicable in selective soldering processes from 265° C as well as in dip soldering processes up to 350° C. With increasing soldering temperature, however, it is to be expected an increasing GE-consumption as well as an intensified Cu-removal!

Alloy	**Sn100^{-403}CS+ (Sn99,225Cu0,7Ni0,05Ge0,025)**
Melting temperature in °C	227 (eutectic)
Soldering temperature in °C	260 - 270
Density in g/cm³	7,4
Specific heat of fusion J/g	61,0
Surface tension mN/m *	542,45
Electrical conductivity in $\mu\Omega$m	13,0

* Values from FHG/IZM Berlin

Analysis/Tolerances

Element	**Sn**	**Cu**	**Ag**	**Ni**	**Ge**	**Pb**	**Au**
Content (%)	Rest	0,6 - 0,7	max. 0,05	0,04 – 0,06	0,024 – 0,026	max. 0,05	max. 0,03

Element	**Al**	**As**	**Bi**	**Cd**	**Fe**	**Sb**	**Zn**
Content (%)	max. 0,001	max. 0,03	max. 0,03	max. 0,002	max. 0,02	max. 0,05	max. 0,001

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Delivery Forms

400 g - rods, 330 x 20 x 10 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.

Advice

Other alloys are included in our standard delivery program.

Storage

Stored at constant indoor climate durable for an unlimited period!

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