



Product Information

Lead-free desoxidation concentrate Sn99Ge1

Desoxidation Concentrate for FELDER ISO-Tin® NiGe-electronic solder alloys

Art.-No. 5512 001089

FELDER Lead-free Desoxidation Concentrate do not contain any substances that are subject to restriction by directive 2011/65/EU ("RoHS II").

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.

Description

FELDER Desoxidation Concentrate Sn99Ge1 regulates the Ge-value to the necessary value by adding in wave soldering-, selective soldering- and HASL-machines.

FELDER Desoxidation Concentrate Sn99Ge1 is also used for the changeover of lead-free standard solder to FELDER NiGe-electronic solder alloys.

Germanium decreases during soldering process by oxidation.

Ge consumption is heavily dependent on the soldering technology used. Soldering temperature, the additional use of shielding gases or covering oils and of course the throughput of a system are factors that influence this need.

Application

The oxide-reducing effect of germanium (Ge) in **FELDER NiGe solders** is also associated with consumption of this element in the soldering process. The Ge content in the solder bath should be between 0.010% and 0.015%. At a Ge content of less than 0.008%, the deoxidizing effect decreases steadily. The addition of Ge concentrate compensates for this consumption. The wire sections are simply added to the molten solder and rapidly dissolve therein. After a brief operation of the solder pump (s), the germanium is then distributed homogeneously in the solder bath.

Addition of Ge-concentrate in NiGe-solder bathes per 100 kg capacity

Current Ge-value in %	0,01	0,009	0,008	0,007	0,006	0,005
Ge-Concentrate addition in kg	-----	0,1	0,2	0,3	0,4	0,5
Current Ge-value in %	0,004	0,003	0,002	0,001	0	-----
Ni-Concentrate addition in kg	0,6	0,7	0,8	0,9	1,0	-----

By adding the advised mentioned amounts of the concentrate (Sn99Ge1) a value of 0,01 % germanium in the solder bath is adjusted.

Maximum impurities / Tolerances acc. DIN EN ISO 9453:2014

Element content (%)	Ag	Al	As	Bi	Cd	Cu	Fe
	0,10	0,001	0,030	0,10	0,002	0,050	0,020
Element content (%)	Ge	Ni	Pb	Sb	Sn	Zn	
	1,00±0,20	0,01	0,07	0,10	Rest	0,001	

Delivery Form

Rolled wire cuttings 10 mm x 150 mm, packed in 5,- kg boxes.

Advices

Minimum durable for 60 months when stored in closed boxes and protected against humidity!