



BALVER ZINN
Josef Jost GmbH & Co. KG

Technical Data Sheet

BALVER ZINN SOLDER

SN100CL SnCu0,7Ni

SN100Cle+ SnNi

Product Description

BALVER ZINN SOLDER SN100CL and Cle+ are a lead free* alloys specially developed for the LFHASL process. **SN100CL** is chemically identical with **SN100C** (L stands for levelling) this alloy was rated by the NASA consortia as the most reliable lead free alloy in wave soldering. **BALVER ZINN SOLDER SN100CL** is a nickel micro alloyed eutectic tin/copper alloy with small traces of germanium to reduce oxidation. **BALVER ZINN** has more than five years experience in producing fine grain solder with unchanging quality. **BALVER ZINN SOLDER SN100CL** excels all other lead free alloys in lowest copper dissolution and allow profitable mass production. A further outstanding property is the bright and shiny appearance of the pretinned boards without visible difference to conventional tin/lead boards. **Balver Zinn SOLDER SN100CL** is well established since many years in the printed circuit industry. Existing vertical and horizontal hot air levelling machines can be used or adapted for the LF-process. Due to the product specific properties of **BALVER ZINN SOLDER SN100CL** very coplanar and outstanding solderable LFHASL boards are the result. The accurate amount of nickel – covered world wide by patents – cause less stainless steel dissolution than with other lead free alloys. More technical information are available in **BALVER ZINN Technical Information: "LFHASL with BALVER ZINN"**

BALVER ZINN SOLDER SN100CL and Cle+ contains to our knowledge no substances in concentrations, which are prohibited by the European legislation 2002/95/EG ("RoHS")

Properties of LFHASL boards

- Very good solderability also after one year storage
- LFHASL boards can be cleaned with alkaline solutions after misprinting solder paste
- **SN100C** surface dissolve slower in wave soldering than immersion tin
- Solder paste spread is better than other lead free surfaces
- **SN100C** HASL boards can be combined with SAC alloys (results from NASA consortia)
- **SN100C** HASL boards are suitable for the lead process (melting point of **SN100C** is lower than pure tin)

Field of Application and Conditions of Processing

Pretinning of printed circuit boards with the HASL process in vertical and horizontal machines.

- **Process temperature: 265-280°C**
- **Dipping time 1,5 – 5 sec** (related to thickness and thermal mass)
- **First filling of the machine with BALVER ZINN SOLDER SN100CL+**
- **Refilling only with BALVER ZINN SOLDER SN100Cle+** (we recommend in some applications the use of **SN100Cle**)

If the copper content exceed the limit of approximately 1,2% a partially exchange of solder is recommended. In some machines it is praxis to remove copper with the so called "screen-spoon". More details in the **BALVER ZINN Technical Information : " Process control in LFHASL solder bath"** or contact our technical support