

# Product Information

## **FELDER ISO-Tin® - SN100-<sup>403</sup>Cle, SN100-<sup>403</sup>CLeS, SN100-<sup>403</sup>Cle+**

Refill solders for **SN100-<sup>403</sup>CL** and **SN100CL™**

according to **NIHON SUPERIOR** - DE-Patent-No. 69918758 and European-Patent-No. 0985486,  
**Sn99,9(NiGe)**

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

Item-No.: 561290 ...

## Application

In order to compensate the entry of copper into the lead-free alloys SN100-<sup>403</sup>CL and SN100CL™ in hot air solder levelling units for the PCB production we recommend our copper-free refill solders SN100-<sup>403</sup>CLe, SN100-<sup>403</sup>CLeS and SN100-<sup>403</sup>Cle+. For this purpose, a regular analytical control of the solder bath is inevitable.

As especially during the hot air levelling process the copper entry is particularly high, copper-free refill solders are used for the compensation. Optimal solder characteristics, like improved wetting properties and lowest dross formation, take only effect with a Germanium value of 80 ppm or higher. Here we recommend the refill solder alloy SN100-<sup>403</sup>CLeS with 100 ppm Ge.

## Properties

Melting temperature in °C:	232 (eutectic), reduces in the solder bath to at least 227° C!
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### Analysis/Tolerances

Element Content (%)	Sn	Cu	Ag	Ni	Ge	Pb	Au
<b>SN100-<sup>403</sup>CLe</b>	Rest	≤ 0,20	≤ 0,05	<b>0,04 – 0,06</b>	<b>0,005 – 0,007</b>	≤ 0,05	≤ 0,03
<b>SN100-<sup>403</sup>CLeS</b>	Rest	≤ 0,20	≤ 0,05	<b>0,04 – 0,06</b>	<b>0,009 – 0,011</b>	≤ 0,05	≤ 0,03
<b>SN100-<sup>403</sup>CLe+</b>	Rest	≤ 0,20	≤ 0,05	<b>0,13 – 0,17</b>	<b>0,005 – 0,007</b>	≤ 0,05	≤ 0,03

Element Content (%)	Al	As	Bi	Cd	Fe	Sb	Zn
<b>SN100-<sup>403</sup>CLe</b>	≤ 0,001	≤ 0,03	≤ 0,03	≤ 0,002	≤ 0,02	≤ 0,05	≤ 0,001
<b>SN100-<sup>403</sup>CLeS</b>							
<b>SN100-<sup>403</sup>CLe+</b>							

## Storage / Advice:

Stored at constant indoor climate durable for an unlimited period!

## Delivery Forms

1,0 kg - rods, 330 x 20 x 20 mm,  
4,0 kg - block with closed hanging hole