

# Product Information

## **FELDER ISO-Tin<sup>®</sup> - 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<sup>™</sup>

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

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

Item-No.: 561290 ...

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

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
SN100- <sup>403</sup> CLe	Rest	≤ 0,20	≤ 0,05	0,04 – 0,06	0,005 – 0,007	≤ 0,05	≤ 0,03
SN100- <sup>403</sup> CLeS	Rest	≤ 0,20	≤ 0,05	0,04 – 0,06	0,009 – 0,011	≤ 0,05	≤ 0,03
SN100- <sup>403</sup> CLe+	Rest	≤ 0,20	≤ 0,05	0,13 – 0,17	0,005 – 0,007	≤ 0,05	≤ 0,03

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

## 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