

SN100C4 (SnCu4Ni)

Rev: 21.5

Date 2025.08.26
Language English
SDS 950002



SUMMARY

Alloy SN100C4 can be used at temperatures from 380°C to 540°C in static solder baths and selective soldering machines (mini-wave).

ALLOY	SN100C4 (SnCu4Ni)
PROCESS	
Leadfree	9
Leaded	1
First filling*	9
Refilling*	9

*follow Application Note

INDUSTRY APPLICATION	
Standard electronics	9
Industrial electronics	9
Hi-Rel electronics (automotive)	9

PROCESS CAPABILITY	
Wave soldering	1
Selective soldering	6
Dip soldering	9
Wire tinning	10
Process: Ambient	6
Process: N2 partial	9
Process: N2 vull tunnel	9
Reduces dross	8
Reduces bridging	8
Improves PTH filling	8
Shiny joint appearance	6

Legend	
<i>Especially made for this purpose</i>	9 - 10
<i>Generally qualified for this purpose</i>	7 - 8
<i>Generally usable, but not the best choice</i>	5 - 6
<i>Generally not usable for this purpose</i>	3 - 4
<i>Wrong choice</i>	1 - 2

Check material compatibility with every process change.

Read AN before use.

Read MSDS before use.

Disclaimer:

This information is intended as advice to the best of our knowledge. The provided data is based on our own measurements, they do not provide any guaranteed properties nor are these delivery specifications. Due to the versatility of materials, applications and taking in consideration the industrial property rights of third parties, Balver Zinn Josef Jost GmbH & Co. KG cannot take any liability.

PROPERTIES

Manufacturing standard	WBZ.: Triple X	
Alloy Code	SN100C4	
Alloy composition	SnCu4Ni	
ANSI/J-STD-006C: 2013	not compliant	
DIN EN ISO 9453:2021-01	-	
Liquidus	[°C]	340
Solidus	[°C]	227
Recommended working range*	[°C]	380 - 540

*follow Application Note

COMPOSITION

Tin	[Sn]	Remainder
Copper	[Cu]	3.5 - 4.5
Nickel	[Ni]	0.04 - 0.06
Germanium	[Ge]	0.005 - 0.007
Silver	[Ag]	max. 0.05
Aluminium	[Al]	max. 0.001
Arsenic	[As]	max. 0.03
Gold	[Au]	max. 0.03
Bismuth	[Bi]	max. 0.03
Cadmium	[Cd]	max. 0.002
Iron	[Fe]	max. 0.02
Indium	[In]	max. 0.03
Lead	[Pb]	max. 0.05
Antimony	[Sb]	max. 0.05
Zinc	[Zn]	max. 0.001

SHAPE AND DIMENSION*

Ingot	1 kg	LxWxH [mm]	325x28x15
Ingot with loop	3.7 kg	LxWxH [mm]	540x50/40x20
	4 kg	LxWxH [mm]	515x50/48x22
Bar	Rectangle	[mm]	400x10x8
	Triangular	[mm]	400x10x10
Pellet		[mm]	12x25
Solid wire	ø	[mm]	1.0 - 6.0

*other dimensions on request