

## SN100C3 (SnCu3Ni)

Rev: 21.5

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Language English  
SDS 950002



## SUMMARY

Alloy SN100C3 can be used at temperatures from 340°C to 420°C in static solder baths and selective soldering machines (mini-wave).

| ALLOY          | SN100C3 (SnCu3Ni) |
|----------------|-------------------|
| 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        | 8  |
| 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                 | SN100C3        |           |
| Alloy composition          | SnCu3Ni        |           |
| ANSI/J-STD-006C: 2013      | not compliant  |           |
| DIN EN ISO 9453:2021-01    | -              |           |
| Liquidus                   | [°C]           | 310       |
| Solidus                    | [°C]           | 227       |
| Recommended working range* | [°C]           | 340 - 420 |

\*follow Application Note

## COMPOSITION

|           |      |               |
|-----------|------|---------------|
| Tin       | [Sn] | Remainder     |
| Copper    | [Cu] | 2.5 - 3.5     |
| 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