

SN100CLe+ (SnNi0.15)

Rev: 21.5

| | |
|----------|------------|
| Date | 2021.05.10 |
| Language | English |
| SDS | 950003 |



SUMMARY

SN100CLe+ copper-reduced solder with addition of nickel is the replenishment alloy for SN100CL solder to keep the solder bath within the process limits.

| ALLOY | SN100CLe+ (SnNi0.15) |
|----------------|----------------------|
| PROCESS | |
| Leadfree | 9 |
| Leaded | 1 |
| First filling* | 1 |
| 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 | 1 |
| Dip soldering | 6 |
| Wire tinning | 6 |
| Process: Ambient | 9 |
| Process: N2 partial | N/A |
| Process: N2 | N/A |
| Reduces dross | 8 |
| Reduces bridging | 8 |
| Improves PTH filling | N/A |
| Shiny joint appearance | 9 |

| 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.

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| PROPERTIES | | |
|----------------------------|----------------|-----------|
| Manufacturing standard | WBZ.: Triple X | |
| Alloy Code | SN100CLe+ | |
| Alloy composition | SnNi0.15 | |
| ANSI/J-STD-006C: 2013 | not compliant | |
| DIN EN ISO 9453:2021-01 | - | |
| Liquidus | [°C] | 227 |
| Solidus | [°C] | 227 |
| Recommended working range* | [°C] | 260 - 320 |

*follow Application Note

| COMPOSITION | | |
|-------------|------|---------------|
| Tin | [Sn] | Remainder |
| Copper | [Cu] | max. 0.2 |
| Nickel | [Ni] | 0.13 - 0.17 |
| 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