# Product data sheet

BALVER ZINN®

## Sn63Pb37P

Rev: 21.5

**Date** 2025.08.26

**Language** English

**SDS** 950104

BALVERZINN.COM

### SUMMARY

Sn63Pb37P is a variant of the Sn63Pb37SW solder and is doped with phosphorus to reduce dross formation.

| ALLOY | Sn63Pb37P |
|---|---|
| **PROCESS** | |
| Leadfree | 1 |
| Leaded | 9 |
| 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 | 9 |
| Selective soldering | 9 |
| Dip soldering | 9 |
| Wire tinning | 8 |
| Process: Ambient | 9 |
| Process: N2 partial | 9 |
| Process: N2 vull tunnel | 9 |
| Reduces dross | 9 |
| Reduces bridging | 9 |
| Improves PTH filling | 9 |
| Shiny joint appearance | 10 |

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

**Check material compatibility with every process change.**

**Read AN before use.**

**Read MSDS before use.**

**Product contains SVHC substance Lead with more than 0,1 Mass%.**

| PROPERTIES | | |
|---|---|---|
| Manufacturing standard | WBZ. BaTiLoy | |
| Alloy Code | Sn63Pb37P | |
| Alloy composition | Sn63Pb37 | |
| ANSI/J-STD-006C: 2013 | compliant | |
| DIN EN ISO 9453:2021-01 | Alloy 102 | |
| Liquidus | [°C] | 183 |
| Solidus | [°C] | 183 |
| Recommended working range* | [°C] | 245 - 300 |

*follow Application Note

| COMPOSITION | | |
|---|---|---|
| Lead | [Pb] | Remainder |
| Tin | [Sn] | 62.5 - 63.5 |
| Phosphorus | [P] | 0.0015 - 0.004 |
| Silver | [Ag] | max. 0.05 |
| Copper | [Cu] | max. 0.08 |
| Nickel | [Ni] | max. 0.01 |
| Aluminium | [Al] | max. 0.001 |
| Arsenic | [As] | max. 0.03 |
| Gold | [Au] | max. 0.05 |
| Bismuth | [Bi] | max. 0.05 |
| Cadmium | [Cd] | max. 0.002 |
| Iron | [Fe] | max. 0.02 |
| Indium | [In] | 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] | - |
| Bar | Rectangle | [mm] | 400x10x8 |
| | Triangular | [mm] | 400x10x10 |
| Pellet | | [mm] | 12x25 |
| Solid wire | ⌀ | [mm] | 1.0 - 6.0 |

*other dimensions on request