

Data Sheet

Cusiltin™ 5

Description:

High-purity silver, copper and tin alloy for vacuum brazing.

Nominal composition by weight: **68% Ag, 27% Cu and 5% Sn**

Prime features:

- Low melting point and vapor pressure
- Stronger than Cusil

Physical Properties*

| | |
|--|---|
| Liquidus Temperature | 760 °C |
| | 1400 °F |
| Solidus Temperature | 743 °C |
| | 1370 °F |
| Coefficient of Thermal Expansion (CTE) | |
| Thermal Conductivity (Calculated) | 51 x 10 ⁻⁶ /C, for 20 – 500 °C |
| | 29 x 10 ⁻⁶ /°F, for 68 – 932 °F |
| Density | 9.8 Mg/m ³ |
| | 0.354 lb/in ³ |
| Yield Strength (0.2% offset) | 277 MPa |
| | 40.2 x 10 ³ lb/in ² |
| Tensile Strength | 372 MPa |
| | 54 x 10 ³ lb/in ² |
| Elongation (2in/50mm gage section) | 40% |
| Electrical Resistivity | 150 x 10 ⁻⁹ ohm·m |
| Electrical Conductivity | 6.7 x 10 ⁶ /ohm·m |
| Vapor Pressure (Calculated) | |
| Recommended Brazing Temperatures | |
| Recommended Brazing Atmospheres | 10 ⁻⁵ mm Hg, H ₂ , or inert gas |

* Please note that all values quoted are based on test pieces and may vary according to component design. These values are not guaranteed in any way and should only be treated as indicative values. They should be used for guidance only and for no other purpose whatsoever.

Impurity Limits

| | |
|----|------------------|
| Zn | less than 0.001% |
| Cd | less than 0.001% |
| Pb | less than 0.002% |
| P | less than 0.002% |
| C | less than 0.01% |

All other metallic impurities having a vapor pressure higher than 10⁻⁷ mm Hg at 500 °C are limited to 0.002% each. Impurities having a vapor pressure lower than 10⁻⁷ mm Hg at 500 °C are limited to a total of 0.075%. (This applies to all forms except powder and extrudable paste.)

Supplied as:

- Foil
- Wire
- Powder
- Extrudable paste
- Preforms

The determination as to the adaptability of any Wesgo materials to the specific needs of the Buyer is solely the Buyer's prerogative and responsibility. All technical information, data and recommendations are based on tests and accumulated experience data, which Wesgo believed to be reliable. However, the accuracy and completeness thereof are not guaranteed.