

## Data Sheet

# Georo™

### Description:

High-purity gold and germanium alloy for vacuum brazing.  
Nominal composition by weight: **88% Au** and **12% Ge**

### Prime Features:

- Very low melting and vapor pressure

### Suggested base materials:

- Kovar, Copper, Metallized ceramic

### Physical Properties\*

Liquidus Temperature	356 °C
	673 °F
Solidus Temperature	356 °C
	673 °F
Coefficient of Thermal Expansion (CTE)	
Thermal Conductivity (Calculated)	
Density	14.7 Mg/m <sup>3</sup>
	0.531 lb/in <sup>3</sup>
Yield Strength (0.2% offset)	168 MPa
	24.4 x 10 <sup>3</sup> lb/in <sup>2</sup>
Tensile Strength	202 MPa
	29.3 x 10 <sup>3</sup> lb/in <sup>2</sup>
Elongation (2in/50mm gage section)	2%
Electrical Resistivity	
Electrical Conductivity	
Vapor Pressure (Calculated)	
Recommended Brazing Temperatures	
Recommended Brazing Atmospheres	10 <sup>-5</sup> mm Hg

\* 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<sup>-7</sup> mm Hg at 500 °C are limited to 0.002% each. Impurities having a vapor pressure lower than 10<sup>-7</sup> 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
- Powder

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.