

GoldAlloy BV-ACN-81

◆ INTRODUCTION

Aufhauser **GoldAlloy BV-ACN-81** is a special alloy for **vacuum brazing**.

◆ APPLICATIONS & CHARACTERISTICS

GoldAlloy BV-ACN-81 is a high-purity gold-copper-nickel brazing alloy for vacuum brazing, remaining ductile after application. Widely used for brazing ceramic components that have been molybdenum-manganese metallized. Provides high-integrity brazed joint duties in aero-engines, aerospace fuel-line assemblies, vacuum tubes, automotive components.

◆ CHEMICAL COMPOSITION (%)

Element	Vacuum Grade 1	Vacuum Grade 2
Au	81.5 ±0.5	81.5 ±0.5
Cu	Remainder	Remainder
Ni	2.0 ±0.25	2.0 ±0.25
Zn	0.001 max	0.002 max
Cd	0.001 max	0.002 max
Pb	0.002 max	0.002 max
P	0.002 max	0.002 max
C	0.005 max	0.005 max
Other volatile elements *	0.001 max	0.002 max
Total volatile elements	0.01 max	0.01 max
Total non-volatile elements	0.05 max	0.05 max



*) Elements with a vapor pressure higher than 10^{-7} torr at 932°F (500°C) such as Mg, Sb, K, Na, Li, Ti, S, Cs, Rb, Se, Te, Sr, and Ca

◆ PHYSICAL and MECHANICAL PROPERTIES

Liquidus temperature	925°C (1697°F)
Solidus temperature	910°C (1670°F)
Brazing temperature range	910 - 981°C (1670 - 1798°F)
Density	17.4 g/cm ³ (9.16 troy oz/in ³)
Color	Gold Gray
Tensile strength	520 MPa (75.50x10 ³ lb/in ²)
Electrical resistivity, microhm-cm	18.7
Electrical conductivity, % IACS (International Annealed Copper Standard)	9.20

◆ SUPPLIED FORMS

- Foil, Wire, Strip
- Powder, Paste
- Preforms per customer specification