

GoldAlloy BV-50

◆ INTRODUCTION

Aufhauser **GoldAlloy BV-50** is a special alloy for **vacuum brazing**.

◆ APPLICATIONS & CHARACTERISTICS

GoldAlloy BV-50 is used on any ferrous and non-ferrous alloys. Provides good wetting on metallized ceramics, including molybdenum-manganese metallized. Good for Kovar alloys. Has greater strength than BV-35 alloy.

GoldAlloy BV-50 is used in vacuum, inert or reducing atmosphere. It exhibits free flowing characteristics.

◆ CHEMICAL COMPOSITION (%)

Element	Vacuum Grade 1	Vacuum Grade 2
Au	50.0 ± 0.5	50.0 ± 0.5
Cu	Remainder	Remainder
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	970°C (1778°F)
Solidus temperature	955°C (1751°F)
Brazing temperature range	970 - 1020°C (1778 - 1868°F)
Density	12.2 g/cm ³ (6.44 troy oz/in ³)
Color	Red Brass
Tensile strength	393 MPa (57.0x10 ³ lb/in ²)
Electrical resistivity, microhm-cm	23.7
Electrical conductivity, % IACS (International Annealed Copper Standard)	7.87

◆ SUPPLIED FORMS

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

Specifications:

AWS A5.8/A5.8M BVAu-10
UNS P00503