

GoldAlloy BV-35Ni

◆ INTRODUCTION

Aufhauser **GoldAlloy BV-35Ni** is a special alloy for **vacuum brazing**.

◆ APPLICATIONS & CHARACTERISTICS

GoldAlloy BV-35Ni is used on any ferrous and non-ferrous alloys. Provides good wetting on metallized ceramics, including molybdenum-manganese metallized. Good for Kovar alloys. Suitable in brazing ceramics to metals. Typical applications include vacuum and electronic tubes, automotive components.

GoldAlloy BV-35Ni is used in vacuum or inert atmosphere.

◆ CHEMICAL COMPOSITION (%)

Element	Vacuum Grade 1	Vacuum Grade 2
Au	35	35
Cu	62	62
Ni	3	3
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	1030°C (1886°F)
Solidus temperature	1000°C (1832°F)
Brazing temperature range	1038 - 1066°C (1900 - 1950°F)
Density	10.9 g/cm ³ (0.394 lb/in ³)
Yield strength (0.2% offset)	185 MPa (26.8 x 10 ³ lb/in ²)
Tensile strength	427 MPa (62.0 x 10 ³ lb/in ²)
Electrical resistivity	110 x 10 ⁻⁹ ohm x m
Electrical conductivity	9.1 x 10 ⁶ /ohm x m

◆ SUPPLIED FORMS

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

Specifications: AWS A5.8/A5.8M BVAu-3