

SilverAlloy BV-72

◆ INTRODUCTION

Aufhauser **SilverAlloy BV-72** is a special alloy (very low level of impurities) for **vacuum brazing**.

◆ APPLICATIONS

When strong, robust, integral joints are required:

- Aeronautical manufacturing and repair
- Aeronautical joining of fuel-lines
- Electrical vacuum tubes
- Linear-beam vacuum tubes (klystrons) and electrical wave guides
- Power supply surge protectors
- Automotive parts

◆ CHEMICAL COMPOSITION (%)

Ag	Cu	Zn	Cd	Pb	P	C
71 - 73	27 - 29	<0.001	<0.001	<0.002	<0.002	<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).

◆ PHYSICAL and MECHANICAL PROPERTIES

Liquidus temperature	780°C (1436°F)
Solidus temperature	780°C (1436°F)
Density	10.0 g/cm ³ (0.361 lb/in ³)
Thermal expansion coefficient @ RT-500°C (RT-932°F)	19.6 10 ⁻⁶ /°C (10.9 10 ⁻⁶ /°F)
Young's modulus, GPa (lb/in ²)	83 (12x10 ⁶)
Yield strength (0.2% offset), MPa (lb/in ²)	272 (39x10 ³)
Tensile strength, MPa (lb/in ²)	372 (54x10 ³)
Electrical resistivity, 10 ⁻⁹ ohm.m	20.4
Electrical conductivity, 10 ⁶ /ohm.m	49.0
Elongation (2in/50mm gauge section), %	19
Knoop Hardness, KHN expressed as MPa	1010

◆ SUPPLIED FORMS

- Foil, Wire
- Powder, Extrudable Paste
- Preforms

Specifications: AWS BVAg-8, ISO 9002