

## ◆ INTRODUCTION

Aufhauser **SilverAlloy BV-61** is a special alloy (very low level of impurities) for **vacuum brazing**.

## ◆ APPLICATIONS

Application is found in all types of moderate temperature low pressure systems, and in particular the electronic vacuum tube.

## ◆ CHEMICAL COMPOSITION (%)

Ag	Cu	In	Zn	Cd	Pb	P	C
60.5 – 62.5	23 - 25	14.0– 15.0	<0.001	<0.001	<0.002	<0.002	<0.005



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

Flow point (Liquidus)	705°C (1301°F)
Melting point (Solidus)	630°C (1166°F)
Brazing temperature range	(710 - 790°C) (1310 - 1455°F)
Density	9.81 g/cm <sup>3</sup> (5.19 troy ounce/in <sup>3</sup> )
Thermal expansion coefficient @ 20-500°C	18.5 10 <sup>-6</sup> /°C
Yield strength (0.2% offset), lb/in <sup>2</sup>	56x10 <sup>3</sup>
Tensile strength, lb/in <sup>2</sup>	65x10 <sup>3</sup>
Elongation (2in/50mm gauge section), %	19
Color	Silver White
Electrical resistivity, microohm.cm	10.7
Electrical conductivity (% IACS – International Annealed Copper Standard)	16.0
Vapor pressure (calculated) @ 600°C, mm Hg	1.7 x 10 <sup>-7</sup>

Aufhauser **SilverAlloy BV-61** has excellent corrosion and oxidation resistance, compared to other silver-copper alloys.

## ◆ SUPPLIED FORMS

- Foil, Wire
- Powder, Paste
- Preforms

**Specifications: AWS BVAg-29, ISO 9002**