

SilverAlloy BV-58

◆ INTRODUCTION

Aufhauser **SilverAlloy BV-58** is a special alloy (very low level of impurities) for **vacuum brazing**.

◆ APPLICATIONS

Aufhauser **SilverAlloy BV-58** can be used on any of the common ferrous and non-ferrous alloys. Due to its low vapor pressure compared to standard silver base filler metals, SilverAlloy BV-58 is suitable for use in all vacuum applications such as electronic valve construction, and vacuum tube construction in electronic industry. Often this alloy is used in brazing of metallized ceramics to nickel-cobalt-iron assemblies and in glass to metal seals.

◆ CHEMICAL COMPOSITION (%)

Ag	Cu	Pd	Zn	Cd	Pb	P	C
57 - 59	31 - 33	10	<0.001	<0.001	<0.002	<0.002	<0.005



All other metallic impurities having a vapor pressure higher than 10-7mm Hg at 500°C are limited to 0.002% each. Impurities having a vapor pressure lower than 10-7mm 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)	852°C (1566°F)
Melting point (Solidus)	824°C (1515°F)
Brazing temperature range	(850 - 907°C) (1565 - 1665°F)
Coefficient of Thermal Expansion (CTE)	18.5 x 10 ⁻⁶ /C, for 20-500 °C 10.3 x 10 ⁻⁶ /°F, for 68-932 °F
Density	10.6 g/cm ³ (5.30 toz/in ³)
Color	Silver White
Electrical resistivity, microhm.cm	4.70
Electrical conductivity (% IACS - International Annealed Copper Standard)	37.0

Aufhauser SilverAlloy BV-58 exhibits higher corrosion and oxidation resistance in comparison to standard silver-copper alloys.

◆ SUPPLIED FORMS

- Foil, Wire
- Powder, Paste
- Preforms

Specifications: AWS BVAg-31, ISO 9002