

◆ INTRODUCTION

Aufhauser SilverAlloy A-50Ni2 is low melting, free-flowing, cadmium-free, and suitable for use in joining "300" series stainless steels in food, medical and dental fields. It is also used extensively in joining small tungsten carbide inserts in cutting tools.

◆ APPLICATIONS

- Aufhauser A-50Ni2 is used for joining most ferrous and non-ferrous metals except aluminum and magnesium.

◆ CHEMICAL COMPOSITION

<u>Silver</u>	<u>Copper</u>	<u>Zinc</u>	<u>Nickel</u>
49.0-51.0	19.0-21.0	26.0-30.0	1.5-2.5

◆ PHYSICAL and MECHANICAL PROPERTIES

Solidus:	1220 °F
Liquidus:	1305 °F
Braze Range:	1310-1550 °F
Specific Gravity:	8.98
Density:	4.73 TO/cu.in.
Electrical Conductivity:	15 %IACS
Electrical Resistivity:	11.75 μohm-cm
Color:	Light Yellow



◆ SPECIFICATIONS MEET or EXCEED

- AWS A5.8 BAg-24
- ASME BAg-24
- AMS 4788
- ISO 3677: B Ag 50 Zn Cu Ni 660-750

◆ STANDARD SIZES AND DIAMETERS

- Diameters: 1/32", 3/64", 1/16", 3/32", 1/8"
- Sizes: 1, 3, 5, or 50 troy ounce

◆ PROPERTIES OF BRAZED JOINTS:

Generally, the joint strength using SilverAlloy A-50Ni2 will surpass the strengths of the base metals. Strength is a function of the base metals being joined, type of joint, design of joint, joint clearances and brazing procedures. The recommended maximum operating temperature for SilverAlloy A-50Ni2 is up to 700 °F (370 °C).

◆ ADDITIONAL INFORMATION

Addition of nickel to the silver-copper zinc alloy imparts corrosion properties which retards joint or interface corrosion of the brazed assembly. The nickel element in SilverAlloy A-50Ni2 also improves bond strength when joining of tungsten carbide cutting tips. A-50Ni2 is a suitable replacement to the cadmium containing SilverAlloy Cd-50Ni3 alloy. Its low liquidus of 1305 °F reduces surface oxidation and sensitization to stainless steels.