

◆ **INTRODUCTION**

Aufhauser **SilverAlloy A-54N** is used for service temperatures up to 700 °F (370 °C). A-54N is a silver brazing alloy suitable for furnace brazing due to its low zinc content. Its broader melting range (250 °F) is helpful where clearances are not uniform.

◆ **APPLICATIONS**

Aufhauser A-54N 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>
53.0-55.0	39.0-41.0	4.0-6.0	0.5-1.5

◆ **PHYSICAL and MECHANICAL PROPERTIES**

Solidus	1325 °F (718 °C)
Liquidus	1575 °F (857 °C)
Braze Range	1575-1775 °F (857-968 °C)
Specific Gravity	9.63
Density	5.07 T.Oz./Cu.In
Electrical Conductivity	49.8 %IACS
Electrical Resistivity	3.46 μohm-cm
Color	White



◆ **SPECIFICATIONS MEET or EXCEED**

- AWS A5.8 BAg-13
- ASME BAg-13
- AMS 4772
- UNS P07540
- EN 17672 Ag 454

◆ **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-54N 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 the assembly joined with SilverAlloy A-54N is up to 700°F (370°C).

◆ **ADDITIONAL INFORMATION**

During melting, SilverAlloy A-54N passes from the solid state to a mushy or plastic state and progressively to a liquid. If heated slowly through this plastic state (1325-1575 °F) the liquid portion may flow from the solid portion. This causes a separation of the alloy into a low temperature melting (solid) portion. This phenomenon is called liquation. The high temperature melting portion will melt only above the normal brazing temperature of SilverAlloy A-54N. For this reason, SilverAlloy A-54N should be heated rapidly through the melting range.