



Chemical, Physical and Brazing Characteristics

Silver Alloy 56 Ni2

Typical Composition

| | |
|------------------------|--------------|
| Silver | 56.0% ± 1.0% |
| Copper | 42.0% ± 1.0% |
| Nickel | 2.0% ± 0.5% |
| Other Elements (Total) | 0.15% Max |

Physical Characteristics

| | |
|--|---------------------------------|
| Color | White |
| Melting Point (Solidus) | 1420°F (771°C) |
| Flow Point (Liquidus) | 1640°F (893°C) |
| Brazing Temperature Range | 1640°F - 1800°F (895°C - 982°C) |
| Specific Gravity | 9.76 |
| Density (Troy oz/in ³) | 5.14 |
| Electrical Conductivity (%IACS) ⁽¹⁾ | 51.2 |
| Electrical Resistivity (Microhm-cm) | 3.37 |

⁽¹⁾ IACS = International Annealed Copper Standard

Applications

Aufhauser 56Ni2 is used in furnace brazing, without flux, to join stainless steels in a dry hydrogen atmosphere. The alloy has no zinc and hence is suitable for vacuum furnace brazing.

BRAZING CHARACTERISTICS

Aufhauser 56Ni2 melts at 220F/122C -- a wide temperature range -- and will produce a larger fillet than alloys with a narrower range. This is especially true when heated slowly and the component elements separate (liquates). This wide melting range enables the the filler metal to fill larger gaps than more fluid filler metals.

Nature of the brazed Assemblies

The properties of a brazed joint are dependent upon numerous factors including base metal properties, joint design, metallurgical interaction between the base metal and the filler metal.

Available Forms of the Alloy

Wire, strip, engineered preforms, specialty preforms per customer specification, powder and paste.



Technical Data Sheet

SPECIFICATIONS

Silver Alloy 56Ni2 conforms to the following specifications:

- American Welding Society (AWS) A5.8/A5.8M BAg-13a
- ASME Boiler & Pressure Vessel Code, Sec II-C, SFA-5.8 BAg-13a
- Society of Automotive Engineers (SAE) / AMS 4765
- Federal Specification QQ-B-654 BAg-13a

SAFETY INFORMATION

Before using this product read and understand American National Standard (ANSI) Z49.1, "Safety in Welding and Cutting". For more complete information refer to the Material Safety Data Sheet for Silver Alloy 56Ni2.

WARRANTY CLAUSE

Aufhauser Corporation believes the information contained herein to be reliable. However, the information is given by Aufhauser Corporation without charge and the user shall use such information at its own discretion and risk. This information is provided on an "AS IS" AND "AS AVAILABLE" basis and Aufhauser Corporation specifically disclaims warranties of any kind, either express or implied, including, but not limited to, warranties of title or implied warranties of merchantability or fitness for a particular purpose. No oral advice or written or electronically delivered information given by Aufhauser Corporation or any of its officers, directors, employees, or agents shall create any warranty. Aufhauser Corporation assumes no responsibility for results obtained or damages incurred from the use of such information in whole or in part.