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# SILVERBRAZE 65 (BAg-9)

## TECHNICAL DATA

### NOMINAL COMPOSITION

| | |
|---|---|
| **Silver** | 65.0% ± 1.0 |
| **Copper** | 20.0% ± 1.0 |
| **Zinc** | 15.0% ± 2.0 |
| **Other Elements Total** | 0.15% |

### PHYSICAL PROPERTIES

| | |
|---|---|
| **Color** | White |
| **Solidus** | 1240°F (671°C) |
| **Liquidus** | 1325°F (718°C) |
| **Recommended Brazing Temperature** | 1375-1425°F (746-773°C) |
| **Density (Troy oz/in$^3$)** | 5.06 |
| **Specific Gravity** | 9.60 |
| **Electrical Conductivity (%IACS)** | 21.3 |
| **Electrical Resistivity (Microhm-cm)** | 8.10 |

### USES

Silver Braze 65 is commonly used in the silver-smith trade and other applications where their silver-white color is advantageous in color matching, and the corrosion resistance of high-silver, low-zinc alloy is desired. Silver Braze 65 is used in combination to perform sequential or step brazing of adjacent joints, to avoid re-melting the previously made joints. Because of their zinc content, Silver Braze 65 can be used to join iron and nickel-base alloys.

### BRAZING CHARACTERISTICS

Silver Braze 65 is an intermediate silver brazing filler metal with a slight tendency to liquate (separation into low and high melting constituents) if heated slowly through its melting ranges. Silver Braze 65 is used for brazing silver base alloys, the re-melt temperature is raised by solution of silver in the brazing alloy. Conversely, the re-melt temperature of this brazing alloy is lowered by solution of copper when brazing copper base alloys. Flux is used with this alloy.

### PROPERTIES OF BRAZED JOINTS

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. The results listed below were generated from brazed butt joints which were tested under standard room temperature conditions:

| | Tensile Strength (lbs/in$^2$) | Elongation (%, 2" gage length) |
|---|---|---|
| Copper | 25,000-30,000 | 21-27 |
| Brass | 35,000-45,000 | 13-19 |
| Nickel-Silver | 55,000-60,000 | 20-25 |

### SPECIFICATIONS

Silver Braze 65 conforms to: Unified Numbering System (UNS) P07650 and American Welding Society (AWS) A5.8/A5.8M BAg-9

### AVAILABLE FORMS

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

Individuals requiring further information and Engineering Specification Documents may wish to contact the Engineering Society for Advanced Mobility, Land Sea Air and Space, The Society of Automotive Engineers http://www.sae.org/ (SAE AMS) or The American Welding Society (AWS) http://aws.org/

## NOTE:

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