



235 Kilvert Street  
Warwick, RI 02886

*A World-Class Quality Partner*  
**ISO 9001:2008**  
Registered

**PRODUCT:** **SILVALOY® 35**  
**(AWS BA<sub>g</sub>-2)**

### **COMPOSITION:**

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Silver	35.0 wt%
Copper	26.0 wt%
Zinc	21.0 wt%
Cadmium	18.0 wt%
Total other elements	0.15 wt% Max.

### **MATERIAL PROPERTIES:**

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Solidus	1125°F (607°C)
Liquidus	1295°F (702°C)
Brazing Range	1295-1550°F (702-843°C)
Specific Gravity	8.877
Density (toz./cu. in.)	4.678
Electrical Conductivity (% IACS)	27.5
Electrical Resistivity (Michroh <sub>m</sub> -cm)	6.26
Color	Light Yellow

### **DESCRIPTION:**

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**SILVALOY 35** is free-flowing and suited for general purpose work. Its broader melting range is helpful where clearances are not uniform. During melting, **SILVALOY 35** passes from the solid state to a mushy or plastic state and progressively to a liquid. If heated slowly through this plastic state (1125-1295°F), the liquid portion may flow from the solid portion. This causes a separation of the alloy into a low-temperature melting (fluid) portion and a high-temperature melting (solid) portion. This phenomenon is called liquation. The high-temperature melting portion will melt only above the normal brazing temperature of **SILVALOY 35**. For this reason, **SILVALOY 35** should be heated rapidly through the melting range.

### **APPLICATIONS:**

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Typical applications are the joining of ferrous, non-ferrous, and dissimilar metals and alloys with close joint clearances. **SILVALOY 35** is an alloy with a melting range suitable for brazing steel, stainless steel, copper, copper alloys, nickel, nickel alloys or combinations of these metals.



**PRODUCT:** **SILVALOY<sup>®</sup> 35 – CONTINUED**  
**(AWS BAg-2)**

**SPECIFICATIONS:**

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AWS A5.8	BAg-2
ASME	BAg-2
QQ-B-654	Grade VIII
AMS	4768

**AVAILABLE FORMS:**

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Standard forms of **SILVALOY 35** are wire, strip, powder, and preforms.

**PROPERTIES OF BRAZED JOINTS:**

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Generally, the joint strength using **SILVALOY 35** 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 **SILVALOY 35** is up to 400°F in continuous service and up to 600°F in intermittent service. Where improved corrosion resistance is needed, **SILVALOY<sup>®</sup> 50N** and **SILVALOY<sup>®</sup> A40N2** are recommended over silver-base filler metals not containing nickel.

**SAFETY INFORMATION:**

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**SILVALOY 35** contains cadmium and therefore upon heating may produce toxic fumes. It is essential that adequate ventilation be provided so that personnel will not inhale gases and fumes while brazing. The operation and maintenance of brazing equipment or facility should conform to the provisions of American National Standard (ANSI) Z49.1, "Safety in Welding and Cutting". For more complete information, refer to the Material Safety Data Sheet on **SILVALOY 35**

**LIABILITY-DISCLAIMER:**

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Wolverine Joining Technologies, LLC, seeks to represent reliable information concerning the composition, properties and use of its products. The technical information provided in this publication is provided at no charge and is without guarantee, warranty or responsibility of any kind, expressed or implied.

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