



235 Kilvert Street  
Warwick, RI 02886

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

**PRODUCT:** **SILVALOY<sup>®</sup> 0**  
**(AWS BCuP-2)**

**COMPOSITION:**

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Phosphorous	7.25 wt%
Copper	92.75 wt%
Total Other Elements	0.15 wt% Max.

**MATERIAL PROPERTIES:**

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Solidus	1310°F (710°C)
Liquidus	1460°F (793°C)
Brazing Range	1350-1550°F (732-843°C)
Specific Gravity	7.913
Density (toz/cu in)	4.170
Electrical Conductivity (% IACS)	7.5
Electrical Resistivity (Michroh-m-cm)	23.2
Color	Copper Yellow

**DESCRIPTION:**

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**SILVALOY 0** is extremely fluid at brazing temperatures and will penetrate joints with very little clearance. Best results are obtained with clearances of .001-.003". Melting of **SILVALOY 0** is virtually complete at 1350°F (732°C). Best results are obtained when brazing slightly above this temperature. The phosphorus content of **SILVALOY 0** acts as a fluxing agent and no flux is necessary when brazing copper to copper joints. However, when used with a copper alloy or one of the other brazeable metals, a brazing flux must be used to promote wetting, bonding, and flow throughout the joint. The flow point of **SILVALOY 0** is 1350°F (732°C).

**APPLICATIONS:**

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**SILVALOY 0** is used for the brazing of copper and copper alloys, brass and bronze. It is primarily used for the joining of copper-to-copper on vibration free joints. It is very effective for joining tight fitting copper pipe and tubing. **SILVALOY 0** should not be used on ferrous metals or alloys containing more than 10% nickel due to the formation of brittle intermetallic phosphide compounds.



**PRODUCT:** **SILVALOY<sup>®</sup> 0 – CONTINUED**  
**(AWS BCuP-2)**

**SPECIFICATIONS:**

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AWS A5.8	BCuP-2
ASME	BCuP-2
QQ-B-650	BCuP-2

**AVAILABLE FORMS:**

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Standard forms of **SILVALOY 0** are wire, and preforms.

**PROPERTIES OF BRAZED JOINTS:**

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Generally, the joint strength using **SILVALOY 0** 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 temperatures for **SILVALOY 0** are 300°F (continuous service) and 400°F (short time service). Corrosion resistance is satisfactory except when the joint is in contact with sulfurous atmosphere (especially at elevated temperatures).

**SAFETY INFORMATION:**

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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 for **SILVALOY 0**.

**LIABILITY-DISCLAIMER:**

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