



235 Kilvert Street  
Warwick, RI 02886

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

**PRODUCT:** **SILVALOY<sup>®</sup> 5**  
**(AWS BCuP-3)**

### **COMPOSITION:**

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Silver	5.00 wt%
Phosphorous	6.00 wt%
Copper	89.0 wt%
Total Other Elements	0.15 wt% Max

### **MATERIAL PROPERTIES:**

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Solidus	1190°F (643°C)
Liquidus	1495°F (813°C)
Brazing Range	1325-1500°F (718-816°C)
Specific Gravity	8.129
Density (toz/cu in)	4.284
Electrical Conductivity (% IACS)	9.6
Electrical Resistivity (Michroh-m-cm)	18.1
Color	Light Copper

### **DESCRIPTION:**

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**SILVALOY 5** has good flow and wetting properties on copper, brass, and bronze. Its melting characteristics are such that on the low end of its brazing temperature range it has "sluggish" flow characteristics which enable it to fill gaps better, making it ideal for loose-fitting joints. On the other hand, when brazing at high end of its brazing temperature range, it is very fluid, making ideal for tight-fitting joints requiring deep penetration. The phosphorous content of **SILVALOY 5** acts as a fluxing agent and no flux is necessary when brazing copper-to-copper joints. However, when used with 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 5** is 1325°F (718°C).

### **APPLICATIONS:**

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**SILVALOY 5** is used for the brazing of copper and copper alloys, brass, and bronze. It is primarily used for the joining of copper-to-copper. **SILVALOY 5** should not be used on ferrous metals or alloys containing more than 10% nickel due to the formation of brittle intermetallic phosphide compounds.

