

## **SILVALOY® 071** **(BRAZE™ 071, SILVALOY® B7T)**

### ***NOMINAL COMPOSITION***

---

Silver	7.0% ± 0.5%
Copper	85.0% ± 1.0%
Tin	8.0% ± 0.5%
Other Elements (Total)	0.15% Max

### ***PHYSICAL PROPERTIES***

---

Color	Yellow
Melting Point (Solidus)	1225°F (665°C)
Flow Point (Liquidus)	1805°F (985°C)
Brazing Temperature Range	1805°F - 1905°F (985°C - 1040°C)
Specific Gravity	8.89
Density (Troy oz/in <sup>3</sup> )	4.68
Electrical Conductivity (%IACS) <sup>(1)</sup>	12.8
Electrical Resistivity (Microhm-cm)	13.5

<sup>(1)</sup> IACS = International Annealed Copper Standard

### ***PRODUCT USES***

---

Silvaloy 071 flows well on steels, without the use of flux, in controlled atmosphere furnace brazing. It can be used in place of copper brazing in many applications. The lower temperature required, as compared to copper brazing, is a material advantage in increasing the life of the furnace and, with certain types of steel, the lower temperature will result in less damage to the structural characteristics of the steel. With high chromium steels a small amount of Handy® Hi-Temp Flux is helpful in promoting flow where the atmosphere does not entirely prevent oxidation.

Silvaloy 071 has also been used where a high temperature brazing alloy is required because it is desired to heat-treat steel after brazing. The small degree of melting that occurs in Silvaloy 071 at 1225°F does not appear to interfere with such applications.

### ***BRAZING CHARACTERISTICS***

---

Silvaloy 071 is a low cost, high temperature silver brazing filler metal with an extremely long (580°F) melting range. Generally, it is not recommended for torch brazing but flows well on carbon steels, without flux, when used in a reducing furnace atmosphere. If torch brazing must be implemented, Handy® Hi-Temp Flux is recommended for use with this filler metal.

### ***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.

### ***AVAILABLE FORMS***

---

Wire, strip, engineered preforms, specialty preforms per customer specification.

## ***SPECIFICATIONS***

---

Silvaloy 071 alloy conforms to the following specifications: N/A

## ***APPLICABLE PRODUCT CODE(S)***

---

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 32-071, 35509.

## ***SAFETY INFORMATION***

---

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 071.

## ***WARRANTY CLAUSE***

---

Lucas-Milhaupt, Inc. believes the information contained herein to be reliable. However, the information is given by Lucas-Milhaupt, Inc. 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 Lucas-Milhaupt, Inc. 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 Lucas-Milhaupt, Inc. or any of its officers, directors, employees, or agents shall create any warranty. Lucas-Milhaupt, Inc. assumes no responsibility for results obtained or damages incurred from the use of such information in whole or in part.