

## LM 69-273 (70.5 AG/26.5 CU/3.0 TI)

### ***NOMINAL COMPOSITION***

---

Silver	70.5% ± 0.5%
Copper	26.5% ± 0.5%
Titanium	3.0% ± 0.5%
Other Elements (Total)	0.15% Max

### ***PHYSICAL PROPERTIES***

---

Color	Grey
Melting Point (Solidus)	1435°F (780°C)
Flow Point (Liquidus)	1481°F (805°C)
Brazing Temperature Range	1562°F - 1742°F (850°C - 950°C)
Specific Gravity	9.66
Density (Troy oz/in <sup>3</sup> )	5.09
Electrical Conductivity (% IACS) <sup>(1)</sup>	N/A
Electrical Resistivity (Microhm-cm)	N/A

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

### ***PRODUCT USES***

---

LM 69-273 can be used on any of the common metallic and non-metallic substrates. This alloy will wet ceramics, PCD, CBN, titanium, titanium base and super alloys. LM 69-273 exhibits good wetting characteristics on ceramic surfaces eliminating the metallization and plating processes, when the minimum brazing temperature is kept above 1562°F (850°C). Typical applications include brazing of vacuum tubes, wave guides in electrical and electronic industry and PCD, CBN tungsten backed substrates in industrial tool applications, graphite, and diamonds.

### ***BRAZING CHARACTERISTICS***

---

LM 69-273 is generally used in a high vacuum environment. An argon atmosphere with a dew point of -50°F or better could also be utilized.

### ***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***

---

Strip, engineered preforms, specialty preforms per customer specification.

### ***SPECIFICATIONS***

---

LM 69-273 alloy conforms to the following specifications:

- ISO 3677 B-Ag70.5CuTi 780/805

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

---

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: A00000456, Legacy Code: 69-273.

## ***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 LM 69-273.

## ***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.