

LM 69-273

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 ³)	5.09
Electrical Conductivity (%IACS) ⁽¹⁾	N/A
Electrical Resistivity (Microhm-cm)	N/A

⁽¹⁾ 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: 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.

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