

## LM 69-049

### ***NOMINAL COMPOSITION***

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Titanium	Remainder
Zirconium	37.5% ± 1.0%
Nickel	10.0% ± 0.5%
Copper	15.0% ± 1.0%
Molybdenum	0.1% Max
Hafnium	0.1% Max
Iron	0.08% Max
Aluminum	0.05% Max
Silicon	0.02% Max
Oxygen	0.20% Max
Nitrogen	0.03% Max
Carbon	0.04% Max
Other Elements (Total)	0.50% Max

### ***PHYSICAL PROPERTIES***

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Color	Gray
Melting Point (Solidus)	1510°F (825°C)
Flow Point (Liquidus)	1535°F (835°C)
Brazing Temperature Range	1560°F - 1620°F (850°C - 880°C)
Specific Gravity	5.93
Density (Troy oz/in <sup>3</sup> )	3.12
Electrical Conductivity (%IACS) <sup>(1)</sup>	N/A
Electrical Resistivity (Microhm-cm)	N/A

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

### ***PRODUCT USES***

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LM 69-049 exhibits good wetting characteristics on titanium, titanium base alloys, and super alloys. Typical applications include brazing of thermal transfer products i.e. fin- plate heat exchangers and tube bundle heat exchangers.

### ***BRAZING CHARACTERISTICS***

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LM 69-049 is generally used in a high vacuum or dry argon gas environment. Due to its titanium content this alloy may exhibit better corrosion resistance.

### ***PROPERTIES OF BRAZED JOINTS***

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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***

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Powder and paste.

## ***SPECIFICATIONS***

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LM 69-049 alloy conforms to the following specifications:

- American Welding Society (AWS) A5.8/A5.8M BTi-3

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

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The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 69-049.

## ***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 LM 69-049.

## ***WARRANTY CLAUSE***

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