

## HI-TEMP<sup>®</sup> 675

### ***NOMINAL COMPOSITION***

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Copper	67.5% ± 1.0%
Manganese	23.5% ± 1.0%
Nickel	9.0% ± 1.0%
Boron	0.10% Max
Iron	0.10% Max
Selenium	0.005% Max
Other Elements (Total)	0.50% Max

### ***PHYSICAL PROPERTIES***

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Color	Iron Gray
Melting Point (Solidus)	1697°F (925°C)
Flow Point (Liquidus)	1751°F (955°C)
Brazing Temperature Range	1751°F - 1900°F (955°C - 1038°C)
Specific Gravity	8.53
Density (Lbs/in <sup>3</sup> )	0.308
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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Hi-Temp 675 is a copper-nickel-manganese filler metal designed for intermediate temperature brazing of carbides, cast irons, steel, stainless steels and nickel base heat-resistant alloys.

### ***BRAZING CHARACTERISTICS***

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This filler metal exhibits excellent flow and wetting characteristics on tungsten carbide, tool steel and stainless steels. The narrow melting range results in a free-flowing behavior at and above the liquidus temperature. Use Hi-Temp<sup>®</sup>, Handy Hi-Temp<sup>®</sup> DB or Handy Hi-Temp<sup>®</sup> Boron Modified Flux with this filler metal. Suggested clearances at brazing temperature for Hi-Temp 675 are 0.002 in. - 0.005 in. (0.05 mm - 0.12 mm).

### ***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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Strip, engineered preforms, specialty preforms per customer specification.

### ***SPECIFICATIONS***

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Hi-Temp 675 alloy conforms to the following specifications: N/A

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

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The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 77-675.

## ***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 Hi-Temp 675.

## ***WARRANTY CLAUSE***

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