

## PREMABRAZE<sup>®</sup> 300

### ***NOMINAL COMPOSITION***

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Gold	30.0% ± 0.5%
Nickel	36.0% ± 0.5%
Palladium	34.0% ± 0.5%
Other Elements (Total)	0.15% Max

### ***PHYSICAL PROPERTIES***

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Color	Silver
Melting Point (Solidus)	2075°F (1135°C)
Flow Point (Liquidus)	2130°F (1166°C)
Brazing Temperature Range	2130°F - 2250°F (1166°C - 1232°C)
Specific Gravity	11.87
Density (Troy oz/in <sup>3</sup> )	6.25
Electrical Conductivity (%IACS) <sup>(2)</sup>	N/A
Electrical Resistivity (Microhm-cm)	N/A

<sup>(2)</sup> IACS = International Annealed Copper Standard

### ***PRODUCT USES***

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Premabraz 300 can be used on any of the common nickel, molybdenum, tungsten, and iron base heat resistant alloys. Typical uses for this alloy include brazing of assemblies requiring high oxidation resistance, and high strength at elevated temperatures.

### ***BRAZING CHARACTERISTICS***

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Premabraz 300 is a modified gold-nickel alloy. The addition of palladium renders this alloy improved oxidation resistance properties. Premabraz 300 is generally used in reducing, vacuum, or inert atmosphere. The composition of the alloy allows for use in applications where braze filler metals low in volatile constituents are required. A minimum brazing temperature of 2130°F (1166°C) is suggested for furnace brazing in hydrogen or dissociated ammonia having a -60°F dew point or drier on 300 and 400 series stainless steels which do contain any intentionally added Ti or Al elements.

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

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The properties of a brazed joint are dependent upon the base metal, joint design and brazing technique. For controlled atmosphere brazing or vacuum brazing the recommended radial joint clearance for gold base alloys fall within 0.000 in. - 0.002 in. (0.00 mm - 0.05 mm.) range.

### ***AVAILABLE FORMS***

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Wire, engineered preforms, powder and paste.

### ***SPECIFICATIONS***

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Premabraz 300 alloy conforms to the following specifications:

- American Welding Society (AWS) A5.8/A5.8M BAu-5
- Society of Automotive Engineers (SAE) / AMS 4785

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

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The applicable Lucas-Milhaupt product code(s) for Premabraze 300: 69-130.

## ***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 Premabraze 300.

## ***WARRANTY CLAUSE***

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