

PREMABRAZE[®] 700

NOMINAL COMPOSITION

Gold	70.0% ± 0.5%
Palladium	8.0% ± 0.5%
Nickel	22.0% ± 0.5%
Other Volatile Elements (Each) ⁽¹⁾	0.001% Max
Volatile Elements Total (incl. Cd, Zn, Pb)	0.010% Max
Non-Volatile Elements (Total)	0.05% Max

⁽¹⁾ Elements with a vapor pressure higher than 10⁻⁷ torr at 932°F (500°C) such as Mg, Sb, K, Li, Ti, S, Cs, Rb, Se, Te, Sr and Ca

PHYSICAL PROPERTIES

Color	Gold Gray
Melting Point (Solidus)	1845°F (1007°C)
Flow Point (Liquidus)	1915°F (1046°C)
Brazing Temperature Range	1915°F - 2050°F (1046°C - 1121°C)
Specific Gravity	14.79
Density (Troy oz/in ³)	7.79
Electrical Conductivity (%IACS) ⁽²⁾	8.50
Electrical Resistivity (Microhm-cm)	20.3

⁽²⁾ IACS = International Annealed Copper Standard

PRODUCT USES

Premabraz 700 can be used on any of the common ferrous, non-ferrous, and super alloys. Typical applications include brazing of electron tubes, vacuum tubes, wave guides in electronic industry. In aerospace industry, Premabraz 700 can be used in brazing of fuel line assemblies and aero-engine components.

BRAZING CHARACTERISTICS

Premabraz 700 is a high strength, high ductility alloy that exhibits higher corrosion and oxidation resistance in comparison to standard gold-copper alloys. The addition of nickel renders this alloy somewhat more sluggish in flow characteristics but improves wettability on ferrous alloys.

PROPERTIES OF BRAZED JOINTS

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 braze alloys fall within 0.000 in. - 0.002 in. (0.00 mm - 0.05 mm.).

AVAILABLE FORMS

Wire, strip, engineered preforms, specialty preforms per customer specification, powder and paste.

SPECIFICATIONS

Premabraz 700 alloy conforms to the following specifications:

- American Welding Society (AWS) A5.8/A5.8M BAu-6
- Society of Automotive Engineers (SAE) / AMS 4786

APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 18-700.

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 Premabraz 700.

WARRANTY CLAUSE

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