LucasMilhaupt®
A Handy & Harman Company
Global Brazing Solutions®

Technical Data Sheet

PREMABRAZE® 901

NOMINAL COMPOSITION

Silver	90.0% ± 0.5%
Palladium	10.0% ± 0.5%
Zinc	0.001% Max
Cadmium	0.001% Max
Lead	0.002% Max
Phosphorus	0.002% Max
Carbon	0.005% Max
Other high vapor pressure elements each [(1)]	0.001% Max
Total all high vapor pressure elements (Including zinc, cadmium, and lead)	0.010% Max
Total all other impurity elements	0.01% Max

[(1)] Elements with a vapor pressure higher than 10^{-7} Torr (1.3×10^{-5} Pa) at 932ºF (500ºC)

PHYSICAL PROPERTIES

Color	Silver White
Melting Point (Solidus)	1835°F (1001°C)
Flow Point (Liquidus)	1950°F (1065°C)
Brazing Temperature Range	1950°F - 2050°F (1065°C - 1121°C)
Specific Gravity	10.63
Density (Troy oz/in^3)	5.60
Electrical Conductivity (%IACS) [(2)]	25.0
Electrical Resistivity (Microhm-cm)	7.00

[(2)] IACS = International Annealed Copper Standard

PRODUCT USES

Premabraze 901 can be used on any of the common ferrous and non-ferrous alloys. Due to its low vapor pressure and high melting range, Premabraze 901 is commonly used in brazing of cathode components.

BRAZING CHARACTERISTICS

Premabraze 901 has improved corrosion and oxidation resistance characteristics in comparison to standard silver-copper alloys. This alloy exhibits good wetting and flow characteristics on tungsten, molybdenum, stainless steel and nickel base 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 the recommended radial joint clearance for silver base alloys fall within 0.000 in. - 0.002 in. (0.00 mm - 0.05 mm) range.

AVAILABLE FORMS

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

Lucas-Milhaupt, Inc. • 5656 S. Pennsylvania Ave • Cudahy, WI 53110 • Phone: 414.769.6000 • Fax: 414.769.1093 • www.lucasmilhaupt.com

SPECIFICATIONS

Premabraze 901 alloy conforms to the following specifications: N/A

APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for Premabraze 901: 18-901.

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 Safety Data Sheet for Premabraze 901.

WARRANTY CLAUSE

Lucas-Milhaupt, Inc. believes the information contained herein to be reliable. However, the information is given by Lucas-Milhaupt, Inc. without charge and the user shall use such information at its own discretion and risk. This information is provided on an "AS IS" AND "AS AVAILABLE" basis and Lucas-Milhaupt, Inc. specifically disclaims warranties of any kind, either express or implied, including, but not limited to, warranties of title or implied warranties of merchantability or fitness for a particular purpose. No oral advice or written or electronically delivered information given by Lucas-Milhaupt, Inc. or any of its officers, directors, employees, or agents shall create any warranty. Lucas-Milhaupt, Inc. assumes no responsibility for results obtained or damages incurred from the use of such information in whole or in part.

Lucas-Milhaupt, Inc. • 5656 S. Pennsylvania Ave • Cudahy, WI 53110 • Phone: 414.769.6000 • Fax: 414.769.1093 • www.lucasmilhaupt.com