



HANDY ONE[®] AL 822

NOMINAL COMPOSITION

Aluminum	22% ± 1.0%
Zinc	Remainder
Cadmium	0.01% Max
Lead	0.1% Max
Other Elements (Total)	0.15% Max

PHYSICAL PROPERTIES

Color	Grayish-White
Melting Point (Solidus)	800°F (426°C)
Flow Point (Liquidus)	900°F (482°C)
Brazing Range	900°F - 1000°F (485°C - 537°C)
Approximate Density (Lbs/in ³)	0.231
Electrical Conductivity (%IACS) ⁽¹⁾	N/A
Electrical Resistivity (Microhm-cm)	N/A

⁽¹⁾IACS = International Annealed Copper Standard

PRODUCT USES

AL 822 is a general purpose free flowing aluminum filler metals for joining of all brazeable grades of aluminum and aluminum alloys when using open air heating methods. This alloy is ideally suited for brazing of aluminum based HVAC/R coils and Cu lines and the repair of these units.

Handy One is a proprietary family of brazing & soldering products eliminates the need for a separate fluxing operation, which can result in a significant increase in productivity while minimizing flux exposure to your personnel and plant equipment.

PROPERTIES OF BRAZED JOINTS

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. Joint clearances of 0.003 - 0.005 in. (0.076-0.127 mm) per side are optimum for achieving highest joint strength. Joints with increased clearances can still produce adequate joint strengths depending on final operating conditions. Zinc based solders/brazes offer the highest strength in comparison to other commercially available soft solders often surpassing shear strengths of 18,000 PSI as long as proper joint design techniques are implemented.

AVAILABLE FORMS

Flux cored wire and preforms. Two grades of non-corrosive flux are available for the flux cored product:

1. 50:50 ratio Cs based flux: lower melting flux for shorter heating cycles
2. 60:40 ration Cs based flux: slightly higher melting flux with longer life for extended heating cycles

SPECIFICATIONS

AL 822 alloy conforms to the following specifications: N/A



Technical Data Sheet

APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 30-822; 30-823; 30-824.

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 Handy One AL 822.

WARRANTY CLAUSE

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