LucasMilhaupt®
A Handy & Harman Company
Global Brazing Solutions®

Technical Data Sheet

HANDY ONE® AL 802

This 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.

NOMINAL COMPOSITION

Aluminum	2.0% ± 0.5%
Zinc	Remainder
Other Elements (Each)	0.05% Max
Other Elements (Total)	0.15% Max

PHYSICAL PROPERTIES

Color	Grayish-White
Melting Point (Solidus)	710°F (377°C)
Flow Point (Liquidus)	725°F (385°C)
Brazing Range	725°F - 755°F (385°C - 402°C)
Specific Gravity	6.91
Density (Lbs/in^3)	0.25
Electrical Conductivity (%IACS) [(1)]	N/A
Electrical Resistivity (Microhm-cm)	N/A

[(1)] IACS = International Annealed Copper Standard

PRODUCT USES

AL 802 is a general purpose, free flowing soft soldering filler metal for joining of all solderable grades of aluminum and aluminum alloys when using open air heating methods.

PROPERTIES OF SOLDER JOINTS

The properties of a solder 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 alloys offer the highest strength in comparison to other commercially available low temperature aluminum soldering alloys 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 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 802 alloy conforms to the following specifications: N/A

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APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 30-802.

Distribution P/N: 99087.

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 802.

WARRANTY CLAUSE

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