LucasMilhaupt®
A Handy & Harman Company
Global Brazing Solutions®

Technical Data Sheet

CDA 102
Oxygen Free Copper

NOMINAL COMPOSITION

Copper	99.95% Min
Oxygen	0.0010% Max
Other Elements (Total)	0.05% Max

PHYSICAL PROPERTIES

Color	Copper
Melting Point (Solidus)	1981°F (1083°C)
Flow Point (Liquidus)	1981°F (1083°C)
Brazing Temperature Range	2000°F - 2100°F (1093°C - 1149°C)
Specific Gravity	8.94
Density (Lbs /in^3)	0.323
Electrical Conductivity (%IACS) [(1)]	101
Electrical Resistivity (Microhm-cm)	1.71

[(1)] IACS = International Annealed Copper Standard

PRODUCT USES

CDA 102 is a fluid filler metal used for brazing of ferrous and nickel based alloys in particular steel, stainless steel and copper-nickel alloys. This alloy is typically used in a furnace braze applications without the use of flux.

BRAZING CHARACTERISTICS

CDA 102 is a free flowing filler metal that exhibits good wetting characteristics on ferrous and nickel based materials. Maximum strength and joint integrity are obtained where joint clearance falls within the range of 0.000 in. - 0.001 in. (0.000 – 0.025 mm) per side.

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.

AVAILABLE FORMS

Wire, strip, engineered preforms, specialty preforms per customer specification.

SPECIFICATIONS

CDA 102 alloy conforms to the following specifications:

- American Welding Society (AWS) A5.8/A5.8M BCu-3
- Society of Automotive Engineers (SAE) / AMS 4501 (Sheet – chemistry only)
- Society of Automotive Engineers (SAE) / AMS 4701 (Wire – chemistry only)
- Unified Numbering System (UNS) C10200

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APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 60-102.

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 CDA 102.

WARRANTY CLAUSE

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