

CDA 101 CERTIFIED OFHC

Oxygen Free High Conductivity Copper

NOMINAL COMPOSITION

Copper (Cu)	99.99% Min	Antimony (Sb)	0.0004%	Max
		Arsenic (Ar)	0.0005%	Max
		Bismuth (Bi)	0.0001%	Max
		Cadmium (Cd)	0.0001%	Max
		Iron (Fe)	0.0010%	Max
		Lead (Pb)	0.0005%	Max
		Manganese (Mn)	0.00005%	Max
		Nickel (Ni)	0.0010%	Max
		Oxygen (O)	0.0005%	Max
		Phosphorous (P)	0.0003%	Max
		Selenium (Se)	0.0003%	Max
		Silver (Ag)	0.0025%	Max
		Sulfur (S)	0.0015%	Max
		Tellurium (Te)	0.0002%	Max
		Tin (Sn)	0.0002%	Max
		Zinc (Zn)	0.0001%	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

Certified OFHC is a fluid filler metal used for the brazing of ferrous and nickel based alloys especially when brazing steel, stainless steel, and copper-nickel alloys. This alloy is typically used in a furnace braze applications without the use of flux where high purity copper filler metal is required.

BRAZING CHARACTERISTICS

Certified OFHC 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

Certified OFHC alloy conforms to the following specifications:

- American Society for Testing and Materials (ASTM) B170 Grade 1
- American Society for Testing and Materials (ASTM) F68
- American Welding Society AWS A5.8M/A5.8 BVCu-1x
- ASME Boiler & Pressure Vessel Code, Sec II-C, SFA-5.8 BVCu-1x

APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: A00000356, Legacy Code 60-101.

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 101.

WARRANTY CLAUSE

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