Technical Data Sheet

CDA 521

NOMINAL COMPOSITION

Copper	Remainder
Tin	8.0% ± 1.0%
Phosphorus	0.03% - 0.35%

PHYSICAL PROPERTIES

Color	Copper-Yellow
Melting Point (Solidus)	1620°F (882°C)
Flow Point (Liquidus)	1880°F (1027°C)
Brazing Temperature Range	1880°F - 1980°F (1027°C - 1082°C)
Specific Gravity	8.72
Density (Lbs /in^3)	0.315
Electrical Conductivity (%IACS) [(1)]	13.0
Electrical Resistivity (Microhm-cm)	13.3

[(1)] IACS = International Annealed Copper Standard

PRODUCT USES

CDA 521 is a copper-tin filler metal used for brazing of ferrous alloys such as steel. This alloy is typically used in furnace brazing of steels where use of pure copper is not permissible.

BRAZING CHARACTERISTICS

CDA 521 has good wetting characteristics on ferrous based materials, particular steel in a furnace brazing applications. Maximum strength and joint integrity are obtained where joint clearance falls within the range of 0.003 in. - 0.005 in. 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, powder and paste.

SPECIFICATIONS

CDA 521 alloy conforms to the following specifications:

- Unified Numbering System (UNS) C52100

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APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: A00000365, Legacy Codes: 60-521, CDA521.

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 521.

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