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CDA 680 (RBCuZn-B)

TECHNICAL DATA

NOMINAL COMPOSITION	**Copper**	58.0% ± 2.0
	Zinc	Remaining
	Iron	0.75% ± 0.45
	Tin	0.95% ± 0.15
	Manganese	0.255% ± 0.245
	Nickel	0.5% ± 0.3
	Lead	0.05% Max
	Aluminum	0.01% Max
	Silicon	0.12% ± 0.08
	Other Elements, Total	0.50% Max
PHYSICAL PROPERTIES	**Color**	Brass Yellow
	Solidus	1590°F (866°C)
	Liquidus	1620°F (882°C)
	Recommended Brazing Temperature	1670-1720°F (910-938°C)
	Density (lbs./in^3)	0.296
	Specific Gravity	8.19
	Tensile Strength (ksi)	65
	Elongation, 2" gage length (%)	25
	Brinell Hardness	92

USES

CDA 680 is a low fuming bronze filler metal used for brazing of ferrous and non-ferrous allows such as steel and copper. This alloy is typically used where close fit up cannot be maintained and high brazing temperatures are permissible. The addition of iron and manganese increases both the hardness and strength of the braze joint while the addition of nickel ensures uniform distribution if iron in the deposit.

BRAZING CHARACTERISTICS

CDA 680 has good wetting characteristics on ferrous and non-ferrous materials particularly steels and coppers. Maximum strength and joint integrity are obtained where joint clearance falls within the range of 0.003in – 0.005in per side. Heating methods include torch, induction and furnace. A slightly oxidizing flame should be used when torch brazing.

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.

SPECIFICATIONS

CDA 680 alloy conforms to: Unified Numbering System (UNS) C68000 and American Welding Society (AWS) A5.8/A5.8M RBCuZn-B

AVAILABLE FORMS

Wire, strip, engineered preforms, specialty preforms per customer specification, powder and paste.

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.”

Individuals requiring further information and Engineering Specification Documents may wish to contact the Engineering Society for Advanced Mobility, Land Sea Air and Space, The Society of Automotive Engineers http://www.sae.org/ (SAE AMS) or The American Welding Society (AWS) http://aws.org/

NOTE:

DISCLAIMER

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