

## Prince & Izant Company

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## CDA 470 (RBCuZn-A) TECHNICAL DATA

<b>NOMINAL COMPOSITION</b>	<b>Copper</b>	59.0% ± 2.0
	<b>Zinc</b>	Remaining
	<b>Tin</b>	0.625% ± 0.375
	<b>Lead</b>	0.05% Max
	<b>Aluminum</b>	0.01% Max
	<b>Other Elements, Total</b>	0.50% Max
<b>PHYSICAL PROPERTIES</b>	<b>Color</b>	Brass Yellow
	<b>Solidus</b>	1610°F (877°C)
	<b>Liquidus</b>	1625°F (885°C)
	<b>Recommended Brazing Temperature</b>	1675-1725°F (913-941°C)
	<b>Tensile Strength (ksi)</b>	55 (Average)
	<b>Elongation, 2" gage length (%)</b>	30
	<b>Brinell Hardness</b>	80
<b>USES</b>	CDA 470 Naval Bronze is used for brazing or welding steel, cast iron, malleable iron, copper-bronze and nickel alloys. The addition of 1% tin improves both strength and corrosion resistance within the braze joint. This alloy is typically used where close fit up cannot be maintained and high brazing temperatures are permissible.	
<b>BRAZING CHARACTERISTICS</b>	CDA 470 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 0.002in – 0.005in per side. Heating methods include torch, induction and furnace. A neutral or slightly oxidizing flame should be used when torch brazing.	
<b>PROPERTIES OF BRAZED JOINTS</b>	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.	
<b>SPECIFICATIONS</b>	CDA 470 alloy conforms to: Unified Numbering System (UNS) C47000 and American Welding Society (AWS) A5.8/A5.8M RBCuZn-A	
<b>AVAILABLE FORMS</b>	Wire, strip, engineered preforms, specialty preforms per customer specification, powder and paste.	
<b>SAFETY INFORMATION</b>	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:**

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