

TECHNICAL DATA SHEET 35

Specifications:

Alloy	Working Temperature (°C)	NF EN ISO 17672	AWS A-5.8	DIN 8513	EN ISO 3677
Cu-Zn-Ni	910	Cu 773	RBCu Zn-D	L-CuNi10 Zn42	B-Cu48ZnNi(Si) 890/920

Characteristics:

NICROX 49C1 is basically a braze welding alloy 10% Ni, which increase Mechanical strength as compared to 506 alloy. of copper and zinc with small addition of silicon, nickel and manganese intended to increase adhesion and to control Zn vaporization. Bare rods are to be used or coated with our **Poly Flux**. Being a high Zn content, it is recommended to keep the heating cycle to a minimum to prevent Zinc vaporisation. .

Applications:

NICROX 49C1, is recommended for brazing High stress joints, Primarily used for joining of Steel to Steel or Carbide to Steel. This brazing alloy is also recommended for joining: Steels, Moulded steels, Nickel and Nickel alloys Coppers, Bronze, Brass, Nickel silver, Cupro-aluminium, with it solidus temperature is >900°C.

Typical Chemical Compositions (%):

Cu	Zn	Ni	Si	Mn	Sn	Ag	Fe	Al/As	Bi/ Sb /Cd	Pb	Max. impurities
48.00	Balance	10.0	0.20	<0.10	<0.10	-	<0.25	<0.01	<0.01	<0.025	<0.20





Typical Physical Properties:

Coating Colour	Solidus (°C)	Liquidus (°C)	Density g/cm ³	Elongation %	Tensile strength (MPa)	Electrical Conductivity (%IACS)	Electrical Resistivity (Micro-ohm-cm)
Customize	890	920	8.70	25	750	-	-

Properties of Brazed Joint:

The properties of a brazed joint dependent upon numerous factors including base metal properties, joint design, metallurgical interactions between the base metal and the filler metal. This alloy needs a controlled quench (in excess of 300°C) to avoid the weakening of the brazed joint.

Standard Size , Types & Heat Source Recommendations:

Size (mm)	Type				Type	 OXYACETYLENE	 INDUCTION	 AÉRO-PROPANE	 FOUR/OVEN
	Bare	Coated	Coil	Preforms					
1.50,2.00,2.50,3.00, 4.00, 5.00	√	√	√	X	Bare	√	√	√	√
					Coated	√	X	X	X

Customised size other than above standard dimensions are solicited case to case basis

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