PHOSBRAZ AG50

Cu-P-Ag 5% Manual brazing

TECHNICAL DATA SHEET 125

Specifications:

Alloy	Working Temperature (˚C)	NF EN ISO 17672	AWS A-5.8	DIN 8513	EN ISO 3677	AMS
Cu-P-Ag	710	CuP 281	BCuP3	L-Ag5P	B Cu 89 P Ag 645-815	-

Characteristics:

PHOSBRAZ AG50 is CuP alloy with Silver and lowers the liquids point, the greater the ductility of the brazed joint. This addition also refines the alloy, increasing the brazed joints mechanical characteristics and improving electrical conductivity. This is special alloy for high strength capillary brazing.

This brazing alloy is not recommended to be used for the media having sulphur. Also it is not allowed to use for joining steels (Fe) or materials containing Iron (Fe), Nickel (Ni), Cobalt (Co) as it will form brittle phase in the joint. The corrosion resistance of this alloy is comparable to that of copper excepts, when the joint is exposed to sulphur containing gas or at elevated temperatures.. Under these conditions, it is expected that, this alloy will undergo progressive deterioration as other copper phosphorus alloy with Silver or without Silver.

Applications:

PHOSBRAZ AG50 is recommended for hard brazing of copper and optionally copper brass pipes of combustible installations. As well as all low temperature applications. In Air conditioning and refrigeration application, **PHOSBRAZ AG50** can be used for the service temperature between +150˚C (without loss in strength) to -50˚C. This alloy can be used with flame.

Typical Chemical Compositions (%):

Cu	P	Ag	Bi	Cd	Pb	Zn	Al	Zn + Cd	Max. impurities
Reminder	6.00	5.00	<0.030	<0.01	<0.025	<0.050	<0.01	<0.05	<0.25

Typical Physical Properties:

Colour	Solidus (˚C)	Liquidus (˚C)	Density g/cm³	Elongation %	Tensile strength (MPa)	Electrical Conductivity (%IACS)	Electrical Resistivity (Micro-ohm-cm)
Copper	645	815	8.2	8%	650	9.6	18.1

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.

Standard size and types:

Size (mm)	Type				OXY/ACETYLÈNE	INDUCTION	AÉRO-PROPANE	FOUR/OVEN
	Bare	Coated	Coil	Preforms				
1.50 , 2.00, 2.50, 3.00	√	√	–	√	√	√	X	X

Preform sizes and other type other than above standard dimensions are solicited case to case basis

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