PHOSBRAZ AG180

CuP-Ag 18% Manual brazing

TECHNICAL DATA SHEET 141

Specifications:

Alloy	Working Temperature (˚C)	DIN EN ISO 17672	AWS A-5.8	DIN 8513	EN ISO 3677	AMS
Cu-P-Ag	650	CuP 286	-	L-Ag 18 P	B Cu 75 Ag P 645-645	-

Characteristics:

PHOSBRAZ AG180 is CuP alloy with Silver, which lowers the liquidus point, refines the alloy, improving electrical conductivity and increasing ductility due to high % of Ag. Also increase its resistance to vibration and cyclic pressure Polyvalent alloy suitable for copper brazing, without need of using a flux, Good fluidity when brazing sleeves/tubes and copper connections, machine junctions, and so forth, which produce strong leak proof joints. This alloy has good gap filling properties and is well suited to bridge wide gaps. Its low melting temperature gives very good resistance.

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 AG180 is mainly used in Plumbing, Electrical components, Refrigeration and Heating/Ventilation. An economical alloy used in joining copper to copper. It can also use to join coper to low zinc brasses with Phosbraz flux.In the electric and electromechanic Industry In Air conditioning and refrigeration application, **PHOSBRAZ AG180** can be used for the service temperature between +150˚C (without loss in strength) to -70˚C. This alloy can be used with flame.

Typical Chemical Compositions (%):

Cu	P	Ag	Al	Bi	Cd	Pb	Zn	Zn + Cd	Max. impurities
Reminder	7.00	18.00	<0.01	<0.030	<0.01	<0.025	<0.050	<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	645	8.4	10%	480	-	-

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, Types and Heat Source Recommendations:

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

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

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