Selectarc BRAZING

PHOSBRAZ 770

Copper Phosphorous Brazing Alloy

(Oven Brazing)

TECHNICAL DATA SHEET 69

Specifications:

Alloy	Working Temperature (˚C)	NF EN ISO 17672	AWS A-5.8	DIN 8513	EN ISO 3677	AMS
Cu-P	730	CuP 182	B Cu-P2	L-Cu P7	BCu92 P 710-770	-

Characteristics:

PHOSBRAZ 770 Alloy as being recommended for the furnace brazing is named according to their liquidus temperature. They are more aggressive than their manual counter parts. Their melting range requires a rapid heating cycle to ensure that the elements do not separate through liquidation.

This alloy is used for copper braising without flux. Its low melting temperature and excellent fluidity of alloy allow saving energy cost. IT is quite common to use 2 or 3 different alloys on one assembly for different joints (Step Brazing) this procedure allows for simultaneous melting of all alloy groups.

Applications:

PHOSBRAZ 770 is used in the work shop for automatic oven brazing. It is recommended for joining copper to copper it is act as self-fluxing alloy and does not required additional flux. It can be used on cuprous alloys (bronze, brass) with Phosbraz flux, electrical industry, Plumbing trade. 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. In Air conditioning and refrigeration application, **PHOSBRAZ 770** can be used for the service temperature between +150˚C (without loss in strength) upto -20˚C. This alloy can be used for flame…Maximum short service joint operating temperature 200˚C.

Typical Chemical Compositions (%):

Cu	P	Al	Bi	Cd	Pb	Zn	Max. impurities
Reminder	7.50	<0.01	<0.030	<0.01	<0.025	0.050	<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	710	770	8.0	4%	450	-	-

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 & Heating Source Recommendation:

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

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

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