

TECHNICAL DATA SHEET 84

Specifications:

Alloy	Working Temperature (°C)	NF EN ISO 17672	AWS A-5.8	DIN 8513	EN ISO 3677	AMS
Cu-P	720	CuP 182	-	L-Cu P8	BCu92 P 710-738	-

Characteristics:

PHOSBRAZ 738 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 to save energy cost. IT is quite common to use 2 or 3 different alloys on one assembly for different joint (Step Brazing) This procedure allows for simultaneous melting of all alloy groups.

Applications:

PHOSBRAZ 738 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 738** can be used for the service temperature between +150°C (without loss in strength) up to -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	Zn + Cd	Max. impurities
Reminder	8.00	<0.01	<0.030	<0.01	<0.025	<0.050	<0.05	<0.25

Typical Physical Properties:

Colour	Solidus (°C)	Liquid us (°C)	Density g/cm ³	Elongation %	Tensile strength (MPa)	Electrical Conductivity (%IACS)	Electrical Resistivity (Micro-ohm-cm)
Copper	710	738	8.0	2%	400	6.0	28.75

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				 OXYACETYLENE	 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

Liability: This document is intended to assist the user in choosing the product. It is up to the user to verify that the chosen product is suitable for applications for which it is intended. The company FSH Welding Group reserves the right to alter specifications without prior notice of its products. The descriptions, illustrations and specifications are for reference only and cannot be held liable for FSH Welding Group. **Fumes:** Consult information on MSDS, available upon request.