

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/cm³	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

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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 710-750	-

Characteristics:

PHOSBRAZ 750 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 750 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 750** 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	Zn + Cd	Max. impurities
Reminder	7.80	<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	710	750	8.0	3%	450	6.1	28.30

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/ACETYLENE	 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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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/ACETYLENE	 INDUCTION	 AÉRO-PROPANE	 FOUR/OVEN
	Bare	Coated	Coil	Preforms				
1.50 ,2.00,2.50,3.00	✓	-	-	-	X	X	X	✓

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Specifications:

Alloy	Working Temperature (°C)	NF EN ISO 17672	AWS A-5.8	DIN 8513	EN ISO 3677	AMS
Cu-P	730	CuP 181	B Cu-P2	L-Cu P7	BCu93 P 710-790	-

Characteristics:

PHOSBRAZ 790 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 790 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, and 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 790** 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	Zn + Cd	Max. impurities
Reminder	7.30	<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	710	790	8.0	4%	450	7.52	22.90

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/ACETYLENE	 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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Specifications:

Alloy	Working Temperature (°C)	NF EN ISO 17672	AWS A-5.8	DIN 8513	EN ISO 3677	AMS
Cu-P	730	CuP 180	-	L-Cu P7	BCu93 P 710-815	-

Characteristics:

PHOSBRAZ 815 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 815 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 and 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 815** 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	Zn + Cd	Max. impurities
Reminder	6.80	<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	710	815	8.0	4%	450	7.40	23.29

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

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TECHNICAL DATA SHEET 51

Specifications:

Alloy	Working Temperature (°C)	DIN EN ISO 17672	AWS A-5.8	DIN 8513	EN ISO 3677	AMS
Cu-P	730	CuP 179		L-Cu P6	B Cu 94 P 710-840	-

Characteristics:

PHOSBRAZ 840 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 840 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 and 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 840** 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	Zn + Cd	Max. impurities
Reminder	6.30	0.01	0.030	0.01	0.020	<0.050	<0.05	<0.25



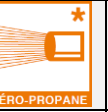

Typical Physical Properties:

Colour	Solidus (°C)	Liquidus (°C)	Density g/cm ³	Elongation %	Tensile strength (MPa)	Electrical Conductivity (%IACS)	Electrical Resistivity (Micro-ohm-cm)
Copper	710	840	8.10	5%	520	7.20	23.95

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 & 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