



COPPER PHOSPHOROUS ALLOYS

The Copper-Phosphorous alloys are extensively used to join copper and copper alloy base metals (brass, bronzes).

They have self-fluxing properties when used on copper and may or may not contain Silver.

A flux is required when joining brass or bronze. Continuous service operating temperatures of joints brazed with these alloys range up to approx 200 °C. Corrosion resistance is satisfactory, except when the joints are exposed to sulfurous environments, especially at elevated temperatures. Copper-Phosphorous alloys should not be used on ferrous, nickel based alloys, or copper-nickel alloys with more of 10% nickel, in order to avoid premature failure of the joint due to the formation of brittle intermetallic phases. They are available in rods, wires, rings, preforms, pastes and powders.

Ag15CuP is also available in strip form.



Brazing of copper return bends

CODE	COMPOSITION %				MELTING RANGE SOL - LIQ	FLOW POINT	DENSITY	TENSILE STRENGTH	CORRESPONDING STANDARDS		
	Ag	Cu	P	Sn	°C	°C	g/cm ³	kg/mm ²	ISO 17672	EN 1044	AWS A5.8

COPPER-PHOSPHORUS

CuP5	-	Bal	5	-	710-925	790	8,1	-	CuP 178	-	-
CuP6	-	Bal	6,3	-	710-890	760	8,1	56	CuP 179	CP 203	-
CuP7	-	Bal	7,3	-	710-820	730	8,1	58	CuP 180	CP 202	BCuP-2
CuP8	-	Bal	7,8	-	710-770	720	8	60	CuP 182	CP 201	-

COPPER-PHOSPHORUS-TIN

CuP7Sn	-	Bal	7	7	650-700	700	8	60	CuP 386	CP 302	~ BCuP-9
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SILVER-COPPER-PHOSPHORUS

Ag0,4CuP	0,4	Bal	6,6	-	650-810	750	8,2	58	-	-	-
Ag2CuP	2	Bal	6,5	-	645-825	740	8,1	55	CuP 279	CP 105	-
Ag2CuP HP	2	Bal	7	-	643-788	740	8,1	-	CuP 280	-	BCuP-6
Ag5CuP	5	Bal	6	-	645-815	710	8,2	55	CuP 281	CP 104	BCuP-3
Ag5CuP HP	5	Bal	6,75	-	643-771	710	8,2	-	CuP 282	-	BCuP-7
Ag6CuP LP	6	Bal	6,2	-	643-800	720	8,3	-	-	-	-
Ag6CuP	6	Bal	7	-	643-813	720	8,3	55	CuP 283	-	BCuP-4
Ag10CuP	10	Bal	6	-	650-750	720	8,3	65	-	-	-
Ag15CuP	15	Bal	4,9	-	645-800	700	8,4	54	CuP 284	CP 102	BCuP-5
Ag15CuP HP	15	Bal	5,1	-	645-800	700	8,4	54	CuP 284	CP 102	BCuP-5
Ag18CuP LP	18	Bal	6,3	-	643-666	670	8,4	50	CuP 285	-	BCuP-8
Ag18CuP	18	Bal	7	-	645	650	8,4	50	CuP 286	CP 101	-

STABILIZED, NOT SPARKLING ALLOYS ARE ALSO AVAILABLE (PLUS VERSION).

ALLOYS WITH DIFFERENT PHOSPHORUS CONTENT ARE AVAILABLE.

CHARACTERISTICS MAKE-UP

 Rods	Ø; □: 1,5 → 4 mm	Length: 500 / 1.000 mm
 Coated Rods	Ø: 1,5 - 2 mm	Length: 500 mm
 Wires	Ø: 0,5 → 3 mm	Coils and Spools
 Strips (Ag15CuP)	Thickness: 0,1 → 1 mm	Width: 1,3 → 120 mm
 Powder and Paste	 Rings	 Preforms from Wire and from Strip