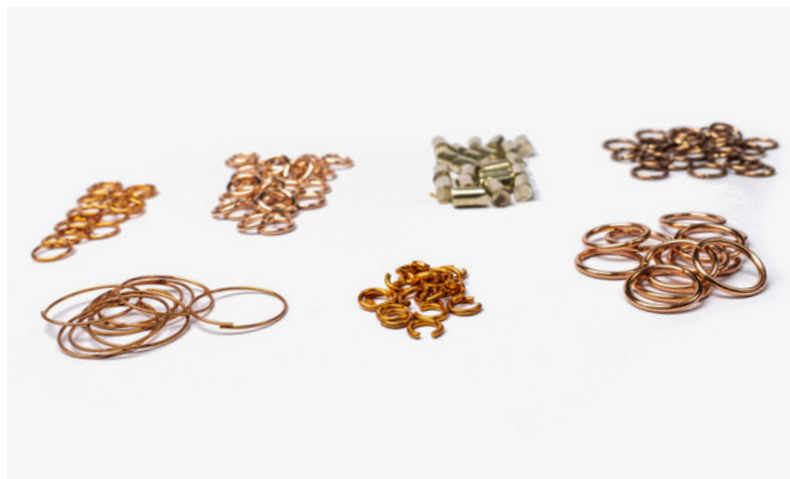


BRASS AND COPPER BASED ALLOYS FOR BRAZE-WELDING



- BRASSES FOR GENERAL AND SPECIAL USES
- HIGH TEMPERATURE COPPER ALLOYS
- FLUXES FOR BRAZING AND FOR BRAZE-WELDING (NEW NON-TOXIC FORMULATION)

STELLA[®]
WELDING ALLOYS

BRASSES

Brasses are economical alloys suitable for being used in brazing and braze-welding processes.



Brasses are widely used for different kinds of metal constructions (such as: metal furniture, radiators, towel warmers...), heat exchangers, means of transport, lamps and other artistic objects.

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

GENERAL PURPOSE BRASSES

Cu60Zn	60	Bal	-	-	-	-	0,3	-	875-895	8,4	40	Cu 470a	CU 301	-
Cu59ZnSn	59	Bal	-	-	-	0,4	0,3	-	875-895	8,4	45	Cu 470	CU 302	RBCuZn-A
Cu59ZnMn	60	Bal	-	-	0,15	-	0,3	-	870-900	8,4	45	Cu 670	CU 303	-
Cu59ZnSnMn	59	Bal	-	-	0,7	0,4	0,3	-	870-890	8,4	45	~ Cu 471	~ CU 304	~ RBCuZn-C
Cu59ZnSnMnNi	59	Bal	-	0,8	0,6	1	0,3	-	870-890	8,4	45	Cu 671	Cu 306	-
Cu59ZnAg	59	Bal	1	-	0,1	0,1	0,1	-	860-890	8,4	45	-	-	-

BRASSES WITH NICKEL

Cu48ZnNi10	48	Bal		10	-	-	0,3	-	890-920	8,7	54	Cu 773	CU 305	RBCuZn-D
Cu48ZnNi9Ag	48	Bal	1	9	-	-	0,2	-	890-920	8,7	54	-	-	-
Cu53ZnNi6	53	Bal		6	-	-	0,2	-	900-920	8,5	49	-	-	-

HIGH TEMPERATURE COPPER ALLOYS

Our offer for high-temp brazing includes particular copper alloys that, in addition to copper, contain zinc, nickel, manganese, cobalt. That is why they are called high temperature copper alloys.



High temperature copper alloys are particularly suitable for manufacturing of digging tools (for excavation, drilling, mining and agricultural processing).



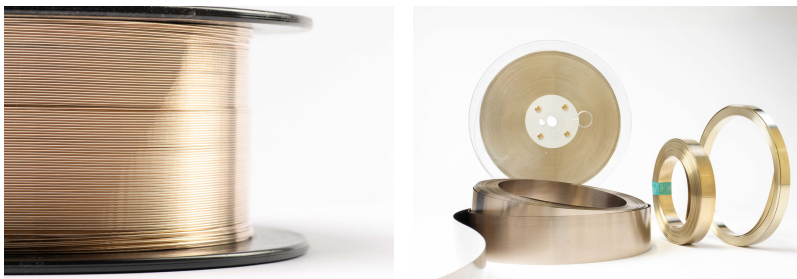
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	Cu	Zn	Ag	Ni	Mn	Sn	Si	Other	°C	g/cm ³	kg/mm ²	ISO 17672	EN 1044	AWS A5.8

HIGH TEMPERATURE COPPER ALLOYS

Cu97Ni3B	97	-	-	3	-	-	-	B 0,03	1085-1100	8,9	-	Cu 186	CU 105	-
Cu87MnCo3	87	-	-	-	10	-	-	Co 3	980-1030	8,7	-	-	-	-
Cu86MnNi2	86	-	-	2	12	-	-	-	960-990	8,8	-	Cu 595	-	-
Cu85MnNi3	85	-	-	3	12	-	-	-	960-990	8,8	-	Cu 595	-	-
Cu67MnNi9	67	-	-	9	24	-	-	-	950-955	8,2	-	-	-	-
Cu58ZnMnCo2	57,5	Bal	-	-	2	-	-	Co 2	880-930	8,2	-	-	-	-
Cu55ZnMn4Ni6	55	Bal	-	6	4	-	0,3	-	880-920	8,9	-	-	-	-
CuMn38Ni9,5	52,5	-	-	9,5	38	-	-	-	880-925	7,7	-	-	-	-

COPPER (FURNACE BRAZING)

OF-Cu	≥ 99,95	-	-	-	-	-	-	-	1085	8,9	-	Cu 102	CU 102	BCu-3
ETP-Cu	≥ 99,90	-	-	-	-	-	-	-	1085	8,9	-	Cu 110	CU 101	BCu-1b
DHP-Cu	99,90	-	-	-	-	-	-	P<0,075	1085	8,9	-	Cu 141	~ CU 104	BCu-1



Brasses and copper based alloys are available in **a variety of make-ups**: bare and coated rods in different diameters and lengths, wires in coils and spools, strips, powders, pastes, preforms from wire and strip.

FLUXES FOR BRAZE-WELDING

Specific fluxes, available in powder, paste and liquid form, are used for braze-welding. **Liquid fluxes**, which are spread from the torch flame, require the use of specific **vaporizers**. They provide a good cleaning from oxides and they are used also with copper-phosphorus alloys. Special safety precautions must be followed during brazing operations, because these fluxes are toxic and flammable.

In order to safeguard the health conditions of operators involved in brazing processes, we have recently introduced a selection of ECO fluxes, with non-toxic formulation.

LIQUID FLUXES FOR BRAZING AND FOR BRAZE-WELDING

CODE	ACTIVITY RANGE	STANDARD	DESCRIPTION
	°C	ISO 18496	
FLUX LI1	550-1100	FH 21 C	For Brazing with Vaporizer systems. Medium Concentration
FLUX LI2	550-1100	FH 21 C	For Brazing with Vaporizer systems. Medium-High Concentration
FLUX LI3	550-1100	FH 21 C	For Brazing with Vaporizer systems. High Concentration
FLUX LI1 ECO	550-1100	FH 21 C	Non-toxic formulation. Medium concentration
FLUX LI2 ECO	550-1100	FH 21 C	Non-toxic formulation. Medium-High concentration
FLUX LI3 ECO	550-1100	FH 21 C	Non-toxic formulation. High concentration



RELIABILITY AND COMPETENCE

We offer high quality brazing alloys and fluxes and a high-level technical assistance in choosing the right products and processes for your specific needs. That's why more than 2000 companies worldwide rely on us!



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