

## BRAZING PRODUCTS



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## WE MANUFACTURE WELDING CONSUMABLES & EQUIPMENT

Magmaweld is a manufacturer of Stick Electrodes, MIG/MAG & TIG Wires, Flux Cored Wires, Submerged-Arc Wires and Fluxes, Welding Machines, Welding Ancillary Products and Automation Systems in Turkey. Oerlikon Kaynak Elektrodları ve Sanayi A.Ş. was founded in 1957 in order to manufacture stick electrodes as a licensee of Oerlikon-Buehrle AG.



Welding Consumables Factory  
Organize Sanayi Bölgesi 2. Kısım, Manisa / Turkey



Welding Machines and Automation Factory  
Organize Sanayi Bölgesi 5. Kısım, Manisa / Turkey

In the year 1996, in order to reduce costs, to strengthen the leading position in Turkey and turn Magmaweld into a global brand, two old factories in Istanbul were moved to new, state of the art factory in Manisa, situated in the west of Turkey. In 2010 the second factory has been opened also in Manisa to produce high-tech welding equipment as well as to integrate robotic automation systems.

The MAGMAWELD brand came out as an analogy between the molten core of the earth, the MAGMA and the WELDPPOOL.

Magmaweld greatly values technical education and has been contributing to the training and education of thousands of welders through regular, free of charge courses since 1961. This service helps to increase consumer awareness and technical competence throughout the industry.

Magmaweld strives for customer satisfaction and process excellence. In order to satisfy customer needs, all questions and remarks about products, training, welding technologies, welding procedures, standards, work safety and automation are processed through the call center at +90 444 WELD (444 93 53) or through live support from [www.magmaweld.com](http://www.magmaweld.com) where the relevant information is directed to Magmaweld's experts.

# BRAZING

Brazing is the method by which same or different metals are welded without being melted with an additional metal (brazing alloy) that melts above 450°C. If the parts to be welded have been designed to be on top of each other, face-to-face or in nested form, the brazing alloy flows into the welding area by capillary effect and provides a firm and tight welding. This brazing method is called capillary brazing. The most important advantage of this process is that it enables the welding of metals without the need for melting of the metals. Thus, the protection of geometric and physical properties of metals is secured. If the welding end of the parts to be welded such as V-, U-, X- is opened and welding is done by filling with brazing alloy, this welding method is called by brazing. The brazing method can be applied for surface coating purposes besides welding purposes.



## BRAZING WIRES

### Copper-Phosphorus / Copper-Phosphorus-Silver Alloys

Used for joining of the copper-phosphorus and copper-copper alloys. The proportions of phosphorus content in these alloys determine the level of viscosity in the usage field. Use of flux for copper-copper welding is not necessary. Used for the brazing of copper-phosphorus-silver brazing alloys, copper-copper and copper-brass welding. Should be used together with BF13 flux for the welding of copper-brass. Since particularly its silver content increases the ductility of the wire, it is used in applications where copper subjected to vibration and thermal stresses and bearing mechanical load is required to be welded with copper. These alloys cannot be used for welding steels and other ferrous metals. It is extensively used in plumbing, electrical industry, air conditioning and cooling sector.

Product Name and Standards	Ag %	Cu %	P %	Sn %	Operating Temperature (°C)	Melting Range (°C)	Recommended Flux	Typical Features
<b>BR 1203</b> ISO 17672:2016 CuP 179 EN 1044 CP 203 EN ISO 3677 B-Cu94P 710-890 DIN 8513 L-CuP6	-	94	6	-	760	710-890	BF 13	Its cavity-filling capacity is good in workpieces where copper and brass materials cannot provide proper opening. Low viscosity degree. Recommended gap between the materials is 0.051 ÷ 0.127 mm (0.002" ÷ 0.005")
<b>BR 1204</b> ISO 17672:2016 CuP 180 EN 1044 CP 202 EN ISO 3677 B-Cu93P 710-820 AWS 5.8 BCuP-2 DIN 8513 L-CuP7	-	93	7	-	730	710-820	BF 13	Its cavity-filling capacity is good in workpieces where copper and brass materials cannot provide proper opening. Medium viscosity degree. Recommended gap between the materials is 0.051 ÷ 0.127 mm (0.002" ÷ 0.005")
<b>BR 1207</b> ISO 17672:2016 CuP 386 EN 1044 CP 302 EN ISO 3677 B-Cu86SnP 650-700 DIN 8513 L-CuSn7	-	86	7	7	700	650-700	BF 13	It is a brazing wire with good viscosity especially in copper-brass brazing used in copper and its alloys. It has high viscosity degree. Performs high resistance for corrosion and provides high tensile strength.
<b>BR 1208</b> ISO 17672:2016 CuP 182 EN 1044 CP 201 EN ISO 3677 B-Cu92P 710-770 DIN 8513 L-CuP8	-	92	8	-	720	710-770	BF 13	Its cavity-filling capacity is good in workpieces where copper and brass materials cannot provide proper opening. It has high viscosity degree. Recommended gap between the materials is 0.051 ÷ 0.127 mm (0.002" ÷ 0.005")
<b>BR 1301/1</b>	1	92	7	-	740	645-825	BF 13	Suitable for brazing of copper-copper based materials. It has good viscosity feature with a high filling capacity. Recommended for customers who desire lower silver amount.
<b>BR 1301/2</b> ISO 17672:2016 CuP 279 EN 1044 CP 105 EN ISO 3677 B-Cu92PAg 645-825 AWS 5.8 BCuP-6 DIN 8513 L-Ag2P	2	91	7	-	740	645-825	BF 13	Suitable for brazing of copper-copper copper-brass materials. It has good viscosity feature with a high filling capacity. Recommended for customers who desire lower silver amount.
<b>BR 1301/5</b> ISO 17672:2016 CuP 281 EN 1044 CP 104 EN ISO 3677 B-Cu89PAg 645-815 AWS 5.8 BCuP-3 DIN 8513 L-Ag5P	5	89	6	-	710	645-815	BF 13	Suitable for brazing of copper-copper copper-brass materials. It has good viscosity feature with a high filling capacity. Suitable for brazing in the kiln under protective atmosphere and inductive heating.
<b>BR 1301/15</b> ISO 17672:2016 CuP 284 EN 1044 CP 102 EN ISO 3677 B-Cu80PAg 645-800 AWS 5.8 BCuP-5 DIN 8513 L-Ag15P	15	80	5	-	700	645-800	BF 13	Suitable for brazing of copper-copper copper-brass materials. It has excellent viscosity and high ductility due to its high silver content. Suitable for brazing in the kiln under protective atmosphere and inductive heating.

## BRAZING WIRES

### Copper-Zinc Brazing Alloys

It is used for the brazing of steel pipes, copper-zinc alloyed steels, cast irons and copper alloys. It is extensively used for ventilation systems, pipe and bodywork joining in automotive sector, decorations, accessory, metal furniture, hospital furniture, equipments, electrical panels, bathroom boilers, towel warmers, hydraulic-pneumatic equipments and repairing of the textile machinery. It is used with BF 11 or BF 12 fluxes in brazing applications.

Product Name and Standards	Ag %	Cu %	Zn %	Sn %	Ni %	Other %	Operating Temperature (°C)	Melting Range (°C)	Recommended Flux	Typical Features
<b>BR 1101</b> ISO 17672:2016 CuP 773 EN 1044 Cu 305 EN ISO 3677 B-Cu48ZnNi(Si) 890-920 AWS 5.8 RBcuZn-D DIN 8513 L-CuNi10Zn42	-	48	Remain	-	10	Si:0.20	910	890-920	BF 11	A copper-zinc brazing wire with good viscosity feature. It is preferred when high tensile strength is desired since it contains nickel.
<b>BR 1102 Ag</b>	1	48	Remain	-	10	Si:0.20	900	890-920	BF 11	A copper-zinc brazing wire with good viscosity feature. It is preferred when high tensile strength is desired since it contains nickel. Since it contains silver, it provides better viscosity and a ductile feature.
<b>BR 1210</b> ISO 17672:2016 Cu 470 EN 1044 Cu 302 EN ISO 3677 B-Cu60Zn(Sn) 875-895 AWS 5.8 RBcuZn-A DIN 8513 L-CuZn40	-	61	Remain	0.2	-	-	885	875-895	BF 12	A copper-zinc brazing wire with very good viscosity feature.
<b>BR 1211 H</b> ISO 17672:2016 Cu 471 EN 1044 Cu 304 EN ISO 3677 B-Cu60Zn(Sn)(Si)(Mn) 870-900 DIN 8513 L-CuZn39Sn	-	60	Remain	0.2	-	Mn:0.20 Si: 0.20	880	870-900	BF 12	A copper-zinc brazing wire with very good viscosity feature.
<b>BR 1211</b> ISO 17672:2016 Cu 671 EN 1044 Cu 306 EN ISO 3677 B-Cu59Zn(Fn)(Ni)(Mn)(Si) 870-890 DIN 8513 L-CuZn39Sn	-	59	Remain	1	0.5	Mn:0.20 Si: 0.15	880	870-900	BF 12	A copper-zinc brazing wire with very good viscosity feature. Suitable for brazing of galvanized metals.
<b>BRF 1211</b> ISO 17672:2016 Cu 671 EN 1044 Cu 306 EN ISO 3677 B-Cu59Zn(Fn)(Ni)(Mn)(Si) 870-890 DIN 8513 L-CuZn39Sn	-	59	Remain	1	0.5	Mn:0.25 Si: 0.15	880	870-900	BF 12	A copper-zinc brazing wire with very good viscosity feature. Suitable for brazing of galvanized metals. Provides easy usage in repair and maintenance works since it is coated with flux.
<b>BR 1211 Ag</b>	1	59	Remain	1	0.5	Mn:0.25 Si: 0.15	880	870-890	BF 12	A copper-zinc brazing wire with very good viscosity feature. Suitable for brazing of galvanized metals. Since it contains silver, it provides better viscosity and a ductile feature.

## BRAZING WIRES

### Silver Brazing Alloys

Silver-containing brazing alloys have low operating temperatures and thanks to their excellent technical properties, they are widely used in mass production and repair-maintenance applications in all industrial sectors where high quality fluids are required among different metals. It is suitable for many different metals except aluminum and aluminum alloys. It is used for metals such as steels, stainless steels, tempered cast irons, copper and alloys, nickel and alloys, etc. For all welding processes other than copper-copper, the use of BF 13 flux is required.

Product Name and Standards	Ag %	Cu %	Zn %	Cd %	Sn %	Ni %	Other %	Operating Temperature (°C)	Melting Range (°C)	Recommended Flux	Typical Features
<b>BR 1303</b> EN 1044 AG 309 ISO 3677 B-Cu40ZnAgCd 605-765 DIN 8513 L-Ag 20Cd	20	40	Remain	15	-	-	-	750	605-765	BF 13	It is a brazing wire with good viscosity, a high cavity filling capacity suitable for welding copper and copper alloys, unalloyed and alloyed steels, nickel and nickel alloys and forgeable cast iron. Color harmony with brass is excellent. Recommended material cavity is 0.1 ÷ 0.25 mm (0.004" ÷ 0.01") Contains cadmium.
<b>BR 1304</b> ISO 17672:2016 Ag 326 EN 1044 AG 307 EN ISO 3677 B-Cu30ZnAgCd 605-720 AWS 5.8 B-Ag 33 DIN 8513 L-Ag 25Cd	25	30	Remain	18	-	-	Si:0.05 Max.	700	605-720	BF 13	Brazing wire intended for general use. Contains cadmium.
<b>BR 1304/SN</b> ISO 17672:2016 Ag 125 EN 1044 AG 108 ISO 3677 B-Cu40ZnAgSn 680-760 AWS 5.8 B-Ag-37 DIN 8513 L-Ag 25Sn	25	40	Remain	-	2	-	Si:0.05 Max.	750	680-760	BF 13	It is a brazing wire with good viscosity, a high cavity filling capacity suitable for welding copper and copper alloys, unalloyed and alloyed steels, nickel and nickel alloys and forgeable cast iron. Intended for general use. It is economical. Provides excellent color harmony with brass. Recommended material gap is 0.05 ÷ 0.13 mm (0.002" ÷ 0.005")
<b>BR 1305</b> ISO 17672:2016 Ag 330 EN 1044 AG 306 ISO 3677 B-Ag30CuCdZn 600-690 AWS 5.8 BAg-2a DIN 8513 L-Ag 30Cd	30	28	Remain	21	-	-	-	680	600-690	BF 13	It has extremely comfortable viscosity control thanks to long melting range and has high filling ability. Recommended material gap is 0.05 ÷ 0.13 mm (0.002" ÷ 0.005") Contains cadmium.
<b>BR 1305/SN</b> ISO 17672:2016 Ag 130 EN 1044 AG 107 ISO 3677 B-Cu36ZnAgSn 665-755 DIN 8513 L-Ag 30Sn	30	36	Remain	-	2	-	Si:0.05 Max.	750	665-755	BF 13	It is a brazing wire with the lowest operating temperature, containing high amount of silver. Has extremely high mechanical strength. Has good viscosity feature with a high filling capacity in narrow material welding processes.
<b>BR 1306</b> ISO 17672:2016 Ag 340 EN 1044 AG 304 ISO 3677 B-Ag40ZnCdCu 595-630 DIN 8513 L-Ag 40Cd	40	19	Remain	20	-	-	-	610	595-630	BF 13	It is a brazing wire with the lowest operating temperature containing high amount of silver. Has extremely high mechanical strength. It has good viscosity feature with high filling capacity in narrow material welding processes. Contains cadmium.
<b>BR 1306/SN</b> ISO 17672:2016 Ag 140 EN 1044 AG 105 ISO 3677 B-Ag40CuZnSn 650-710 AWS 5.8 BAg-28 DIN 8513 L-Ag 40Sn	40	30	Remain	-	2	-	-	690	650-710	BF 13	It is a brazing wire with a low operating temperature, containing high amount of silver. Has extremely high mechanical strength. Has good viscosity feature with a high filling capacity in narrow material welding processes.

## BRAZING WIRES

### Silver Brazing Alloys

Silver-containing brazing alloys have low operating temperatures and thanks to their excellent technical properties, they are widely used in mass production and repair-maintenance applications in all industrial sectors where high quality fluids are required among different metals. It is suitable for many different metals except aluminum and aluminum alloys. It is used for metals such as steels, stainless steels, tempered cast irons, copper and alloys, nickel and alloys, etc. For all welding processes other than copper-copper, the use of BF 13 flux is required.

Product Name and Standards	Ag %	Cu %	Zn %	Cd %	Sn %	Ni %	Other %	Operating Temperature (°C)	Melting Range (°C)	Recommended Flux	Typical Features
<b>BR 1311</b> ISO 17672:2016 Ag 345 EN 1044 AG 302 EN ISO 3677 B-Ag45CdZnCu 605-620 AWS 5.8 BAg-1 DIN 8513 L-Ag 45Cd	45	16	Remain	23	-	-	-	620	605-620	BF 13	It is a brazing wire with low operating temperature and good gap-filling capability. In particular, it is extensively used in welding tungsten carbides. Has high mechanical features. Contains cadmium.
<b>BR 1312</b> ISO 17672:2016 Ag 449 EN 1044 AG 502 EN ISO 3677 B-Ag49ZnCuMnNi 680-705 AWS 5.8 BAg-22 DIN 8513 L-Ag49	49	16	Remain	-	4.5	-	Mn: 7.5	700	680-705	BF 13	It is a brazing wire containing nickel and manganese. It is especially used for welding tungsten carbides, titanium and tantalum containing materials.
<b>BR 1313</b> ISO 17672:2016 Ag 350 EN 1044 AG 301 EN ISO 3677 B-Ag50CdZnCu 620-640 AWS 5.8 BAg-1a DIN 8513 L-Ag 50Cd	50	16	Remain	17	-	-	-	640	620-640	BF 13	It is a brazing wire with low operating temperature and good gap-filling capability. In particular, it is extensively used in welding tungsten carbides. Has high mechanical features. Contains cadmium.
<b>BR 1314</b> ISO 17672:2016 Ag 155 EN 1044 AG 103 EN ISO 3677 B-Ag55ZnCuSn 630-660 DIN 8513 L-Ag 55Sn	55	21	Remain	-	2	-	-	650	630-660	BF 13	It is a brazing wire coated with flux and with a very good viscosity feature in low operating temperature. High corrosion resistance. Resistant to salt water. It has extensive usage in food, medical and marine industry.
<b>BR 1318</b> ISO 17672:2016 Ag 220 EN 1044 AG 206 EN ISO 3677 B-Cu43ZnAg(Si) 690-810 DIN 8513 L-Ag 20	20	44	Remain	-	-	-	Si:0.04	780	690-810	BF 13	It is suitable for the brazing of copper and copper alloys not containing cadmium and with good viscosity, unalloyed and alloyed steels, nickel and nickel alloys and forgeable cast iron. Intended for general use.
<b>BR 1319</b> ISO 17672:2016 Ag 134 EN 1044 AG 106 EN ISO 3677 B-Cu36AgZnSn 630-730 DIN 8513 L-Ag 34Sn	34	36	Remain	-	3	-	-	710	630-730	BF 13	Suitable for brazing of copper-copper based materials. It has good viscosity feature with a high filling capacity. Recommended for customers who desire lower silver amount.
<b>BR 1320</b> ISO 17672:2016 Ag 145 EN 1044 AG 104 EN ISO 3677 B-Ag45CuZnSn 640-680 AWS 5.8 BAg-36 DIN 8513 L-AG 45Sn	45	27	Remain	-	3	-	-	670	640-680	BF 13	It is a brazing wire extensively used in general welding of copper and steel materials.



## BRAZING WIRES

### Silver Brazing Alloys

Silver-containing brazing alloys have low operating temperatures and thanks to their excellent technical properties, they are widely used in mass production and repair-maintenance applications in all industrial sectors where high quality fluids are required among different metals. It is suitable for many different metals except aluminum and aluminum alloys. It is used for metals such as steels, stainless steels, tempered cast irons, copper and alloys, nickel and alloys, etc. For all welding processes other than copper-copper, the use of BF 13 flux is required.

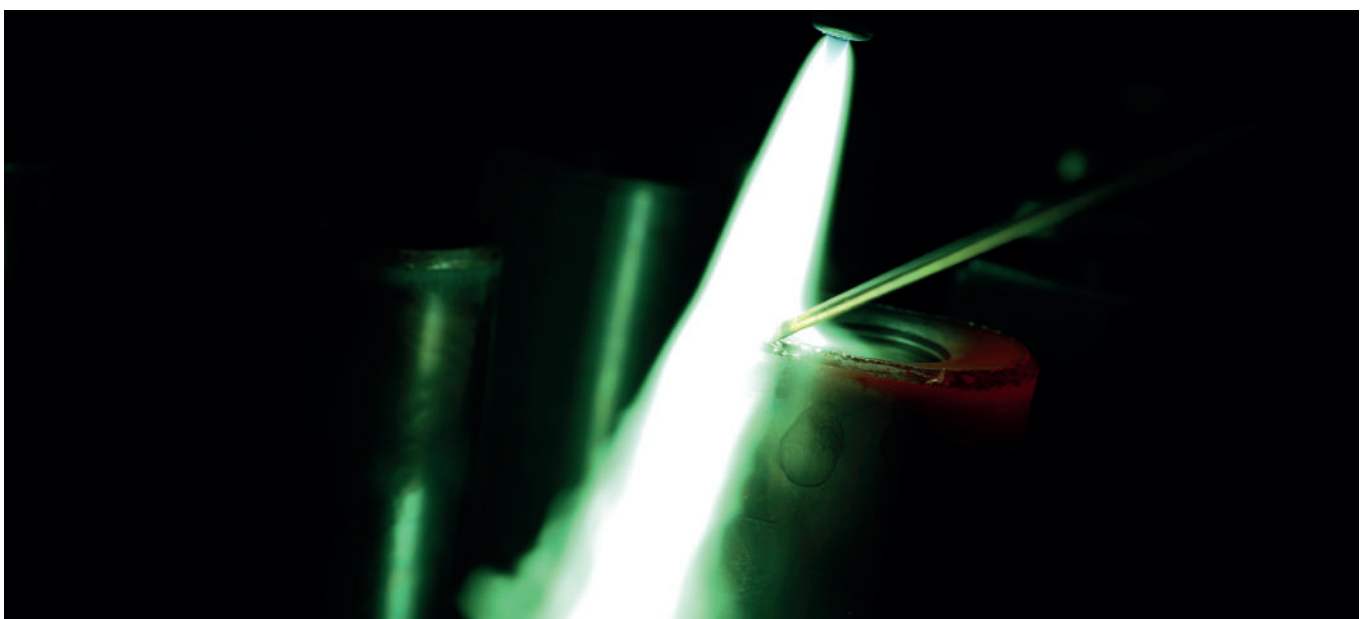
Product Name and Standards	Ag %	Cu %	Zn %	Cd %	Sn %	Ni %	Other %	Operating Temperature (°C)	Melting Range (°C)	Recommended Flux	Typical Features
<b>BRF 1303</b> EN 1044 AG 309 ISO 3677 B-Cu40ZnAgCd 605-765 DIN 8513 L-Ag 20Cd	20	40	Remain	15	-	-	-	750	605-765	BF 13	It is a brazing wire with good viscosity, coated with flux and with a high cavity filling capacity suitable for welding copper and copper alloys, unalloyed and alloyed steels, nickel and nickel alloys and forgeable cast iron. Intended for general use. It is economical. Provides excellent color harmony with brass. Recommended material gap is 0.1 ÷ 0.25 mm (0.004" ÷ 0.01"). Contains cadmium.
<b>BRF 1305</b> ISO 17672:2016 Ag 330 EN 1044 AG 306 EN ISO 3677 B-Ag30CuCdZn 600-690 AWS 5.8 BAg-2a DIN 8513 L-Ag 30Cd	30	28	Remain	21	-	-	-	680	600-690	BF 13	It is a brazing wire with good viscosity, coated with flux and with a low operating temperature suitable for welding copper and copper alloys, unalloyed and alloyed steels, nickel and nickel alloys and forgeable cast iron. Recommended material gap is 0.05 ÷ 0.13 mm (0.002" ÷ 0.005"). Contains cadmium.
<b>BRF 1306</b> ISO 17672:2016 Ag 340 EN 1044 AG 304 EN ISO 3677 B-Ag40ZnCdCu 595-630 DIN 8513 L-Ag 40Cd	40	19	Remain	20	-	-	-	610	595-630	BF 13	It is a brazing wire coated with flux and with the lowest operating temperature, containing high amount of silver. Has extremely high mechanical strength. Has good viscosity feature with a high filling capacity in narrow material welding processes. Contains cadmium.
<b>BRF 1314</b> ISO 17672:2016 Ag 155 EN 1044 AG 103 EN ISO 3677 B-Ag55ZnCuSn 630-660 DIN 8513 L-Ag 55Sn	55	21	Remain	-	2	-	-	650	630-660	BF 13	It is a brazing wire coated with flux and with a very good viscosity feature in low operating temperature. High corrosion resistance. Resistant to salt water. It has extensive usage in food, medical and marine industry.
<b>BRF 1319</b> ISO 17672:2016 Ag 134 EN 1044 AG 106 EN ISO 3677 B-Cu36AgZnSn 630-730 DIN 8513 L-Ag 34Sn	34	36	Remain	-	3	-	Si:0.05 Max.	710	630-730	BF 13	It is coated with flux and has good viscosity feature and extensively used especially in welding copper and brass materials. Provides excellent color harmony with brass.
<b>BRF 1320</b> ISO 17672:2016 Ag 145 EN 1044 AG 104 EN ISO 3677 B-Ag45CuZnSn 640-680 AWS 5.8 BAg-36 DIN 8513 L-Ag 45Sn	45	27	Remain	-	3	-	-	670	640-680	BF 13	Flux coated brazing wire. It has extensive usage in joining of the copper and steel.

## BRAZING WIRES

### Aluminum Brazing Alloys

Our wires are used for brazing of aluminum and aluminum alloys and aluminum-copper alloys have high tensile strength and high corrosion resistance. The use of flux is extremely important since it does not show the annealing color in the flame brazing of aluminum and aluminum alloys.

Product Name and Standards	Al %	Si %	Zn %	Cu %	Fe %	Mn %	Other %	Operating Temperature (°C)	Melting Range (°C)	Recommended Flux	Typical Features
<b>TAL 4047</b> EN ISO 18273 AI 112 EN 1044 AL 104 ISO 3677 B-Al88Si 575-585 AWS 5.10 ER 4047 DIN 8513 Al-Si 12	88	12	-	0.20	0.60	0.15	-	585	575-585	BF 14	It is a brazing wire intended for welding aluminum-aluminum and aluminum alloys. It is extensively used in automotive sub-industry and white goods sector.
<b>ALF 4004</b>	2	-	98	-	-	-	-	420	385-420	-	It is a brazing wire intended for welding aluminum-aluminum and aluminum-copper alloys. It is extensively used in automotive sub-industry and white goods sector. Contains non-corrosive flux.
<b>ALF 4047</b> EN ISO 18273 AI 112 EN 1044 AL 104 ISO 3677 B-Al88Si 575-585 AWS 5.10 ER 4047 DIN 8513 Al-Si 12	88	12	-	0.20	0.60	0.15	-	585	575-585	BF 14	It is a brazing wire extensively used for welding aluminum and aluminum alloys. It is especially used in automotive sub-industry and white goods sector in mass production facilities. Essence of the wire contains non-corrosive flux.



## BRAZING SOLDER FLUXES

Special chemical fluxes applied to the surface and on the brazing material before the brazing process take a liquid form at 50°C-100°C below the melting point of the brazing alloy and perform the following tasks: To dissolve the oxides on the surface chemically, to prevent oxidation that may occur during pre-annealing, to provide easy spreading of the brazing alloy on and to wet the work piece by reducing the surface tension of the brazing alloy in liquid form, to ensure slow cooling of the welded area in some cases, to report that the approximate brazing process has started melting before the brazing alloy. This is particularly an important issue in aluminum and its alloys that do not show annealing color.

Product Name and Standards	Operating Temperature (°C)	Product Code	Box Weight (kg)	Fields of Application and Properties
<b>BF 11</b> DIN 8511 F-HS 2	750-950	8060002W05	0.50	It is a flux used in combination with brazing wires of copper-zinc and copper-zinc-nickel alloy and in the brazing of steel and cast iron. It cleans the surface before the brazing process and prevents oxidation during brazing, allowing the additional wire winding the material. After the brazing process, the surface residual fluxes can be removed by mechanical methods, by means of applying a mechanical treatment in hot water, by immersing the parts in water while they are hot or by using special cleaning solutions.
<b>BF 12</b> DIN 8511 F-HS 2	800-950	8060102W05	0.50	It is a flux used in the brazed welding of copper-zinc and copper-zinc-copper alloy brazing wires and steels, galvanized steel and brass and copper alloys. It cleans the surface before the brazing process and prevents oxidation during brazing, allowing the additional wire winding the material. After the brazing process, the surface residual fluxes can be removed by mechanical methods, by means of applying a mechanical treatment in hot water, by immersing the parts in water while they are hot or by using special cleaning solutions.
<b>BF 13</b> DIN 8511 F-HS 1	550-850	8060302W05 8060304W05	0.50 1.00	It is a flux used in combination with brazing wires containing silver. It is a flux used in the brazed welding of steels, stainless steels, cast iron, nickel and nickel alloys, copper and copper alloys with silver containing alloys. It cleans the surface before the brazing process and prevents oxidation during brazing, allowing the additional wire winding the material. After the brazing process, the surface residual fluxes can be removed by mechanical methods, by means of applying a mechanical treatment in hot water, by immersing the parts in water while they are hot or by using special cleaning solutions.
<b>BF 14</b> AWS/ASME SFA-3.0 FB 1-C DIN 8511 F-LH 1	500-600	8060502K05 8060504M15	0.50 1.00	It is used in the brazing of aluminum and its alloys. It cleans the surface before the brazing process and shows the start time of brazing. It prevents oxidation during brazing, allowing additional metal to wrap the material. Flux residues are corrosive. For this reason, it must be cleaned with warm alkaline solution after brazing.



## PROPERTIES OF SOME METALS



Alloy	Specific Weight (gr/cm <sup>3</sup> )	Melting Range (°C)	Tensile Strength (N/mm <sup>2</sup> )
<b>Steel</b>	7.7 - 7.85	1450-1520	340-1800
<b>Grey Cast Iron</b>	7.1 - 7.3	1150-1250	150-400
<b>Austenitic Stainless Steel</b>	7.8 - 7.9	1440-1460	600-800
<b>Mg Alloys</b>	1.8 - 1.83	590-650	180-300
<b>Al Alloys</b>	2.6 - 2.85	570-655	100-400
<b>Zn Alloys</b>	5.7 - 7.2	380-420	140-300
<b>Brass</b>	8.25	900-950	250-600
<b>Bronze</b>	8.56-8.9	880-1040	200-300

## BRAZING PACKAGING INFORMATION

### Cardboard Boxes



Height (mm)	Width (mm)	Length (mm)	Average Weight (kg)
63	204	208	2
102	301	305	10

### Plastic Boxes



Height (mm)	Width (mm)	Length (mm)	Average Weight (kg)
61	22	330	1

### Envelope Packaging



Width (mm)	Length (mm)	Average Weight (kg)
70	530	1

### TIG and Oxy-Gas Welding Wires



Diameter (mm)	Length (mm)	Average Weight (kg)
50	525	2.5
50	1000	5





## **We Manufacture Welding Consumables & Equipment Since 1957**

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