



Established 1974

ISO 9001:2015 ; ISO 14001 : 2015 ; ISO 45001 : 2018 Certified

ORGANIZATION PROFILE

Indian Solder and Braze Alloys Pvt. Ltd. (ISA), established in 1974, is the leading manufacturer of **Silver Brazing Alloys**, **Copper Phosphorus Brazing Alloys**, **Brass and Bronze Brazing Alloys** and their respective **Fluxes** from India. With over decades of experience the organization has attained specialization by offering perfect solutions for all brazing applications of valued customers.

ISA has been able to carve a niche in the international market by supplying products that are known for their **QUALITY** and **RELIABILITY**. ISA has a proven track record of supplying brazing solutions in many industries across the globe including **Air Conditioning and Refrigeration**, **Aerospace**, **Defence**, **Railways**, **Heavy Engineering and Power**, **Hydraulics**, **Motors**, **Pumps**, **Radiators**, **Switchgears** and **Electrical**, **Cutting and Diamond Tools**, **Automobiles** and **Electrodes**.

INFRASTRUCTURE

Most advanced machineries and production technology has been integrated within the organizations' manufacturing facility to ensure highest tolerances and total conformance to IS/BS/DIN/AWS/EN specifications. Equipped with latest and sophisticated machinery, ISA has been able to meet the ever changing brazing application requirements of customers with utmost precision and within committed time. The management of the organization is strong and focused with a sound and vibrant corporate philosophy thereby enabling employee retention and generating a productive atmosphere. Besides ISA has a team of skilled workforce who continually undergo training so as to match up to the expectations of clients.

MARKETING REACH

We cover the length and breadth of India through our manufacturing plant at Meerut and our sales offices in Mumbai, Pune, Hyderabad, Bengaluru, Vadodara, Bhopal, Jaipur, Haridwar and New Delhi.

Besides the above, we are also exporting our Brazing Products to valued clients in countries like France, United Kingdom, UAE, Portugal, Spain, Poland, Kingdom of Bahrain, Turkey, Sri Lanka and Canada.



QUALITY SYSTEM

ISA is an ISO 9001, 14001 and 45001 certified organization. ISA is the very first organization in India to be awarded the ISO: 9001 certificate for the manufacture of brazing products. To maintain high standards of performance all alloys are melted and fabricated from selected raw materials under the technical supervision of experts. This ensures that brazing alloys conform to the appropriate specification not only in chemical composition but also in their freedom from harmful traces of impurities and other undesirable parameters as well. After final stages of production all products are subject to specific quality control tests with the aid of state of the art in-house testing laboratory. Test reports of each batch with complete traceability for each consignment are sent to all customers.



I N D E X



SECTION 1

Silver Brazing Alloys- with Cadmium

Silver Brazing Alloys- without Cadmium

Silver Brazing Alloys- with Tin

Brazing Alloys- For Tungsten Carbide Tipped Tools

Copper Phosphorous Brazing Alloys

Copper Based Brazing Alloys- Brasses and Bronzes

Aluminum and Zinc-Aluminum Alloys

Fluxes



SECTION 2

Forms and Capabilities

- Bare Rods
- Flux Coated Rods
- Wires
- Copper Phosphorous flats
- Strips and Foils
- Rings and Multi turn Rings
- Fluxes
- Slugs, Pre-forms, Coins and Washers
- Granules
- Trimetal / Sandwich Foils



We are a leading manufacturer of high quality silver brazing alloys that are easy to use, possess high strength impact with short melting ranges, free flowing and versatile. Our silver brazing alloys have outstanding flow characteristics and mechanical properties. These are available in the form of **rods, wire, foils or shims, preforms, granules, rings and paste or powder**. Besides, these can be customised as per clients' specification and application. Our silver brazing alloys range includes :

Cadmium Bearing Alloys

Cadmium Free Alloys

Tin Bearing Alloys

For Tungsten Carbide Tipped Tools

Silver Brazing Alloys With Cadmium

We offer a range of cadmium bearing alloys which have an excellent combination of melting range, capillary flow and mechanical properties. These cadmium bearing alloys are recommended as the most economical alloys where the presence of cadmium is acceptable.

Product Code	Composition %				Melting Range			Corresponding Standard				
	Ag	Cu	Zn	Cd				DIN 8513	BS 1845	AWS A5.8	IS 2927	EN 1044
ALFA-205	50	15	16	19	620-640	9.5 g/cm ³	43 Kg/mm ²	L- Ag50Cd	AG-1	B Ag-1a	BA Cu Ag 10	AG 301
ALFA-209	45	15	16	24	607-619	9.4 g/cm ³	43 Kg/mm ²	L- Ag45Cd	-	B Ag-1	BA Cu Ag 15	AG 302
ALFA-207	43	16	20	21	615-620	9.4 g/cm ³	42 Kg/mm ²	-	-	-	BA Cu Ag 16A	-
ALFA-204	40	19	21	20	595-630	9.3 g/cm ³	42 Kg/mm ²	L-Ag40Cd	AG-10	-	-	AG 304
ALFA-208	35	26	21	18	607-702	9.1 g/cm ³	40 Kg/mm ²	L-Ag34Cd	-	B Ag-2	BA Cu Ag 20	AG 305
ALFA-203	30	27	23	20	607-710	9.1 g/cm ³	38 Kg/mm ²	L-Ag30Cd	AG-12	B Ag-2a	BA Cu Ag 21	AG 306
ALFA-207B	25	35	26	14	605-745	8.8 g/cm ³	40 kg/mm ²	-	-	B Ag-27	-	-
ALFA-202	20	38	28	14	620-750	8.7 g/cm ³	40 Kg/mm ²	L-Ag20Cd	-	-	-	AG 309
ALFA-208A	17	41	26	16	620-760	8.7 g/cm ³	42 Kg/mm ²	-	-	-	-	-
ALFA-203A	12	50	31	7	620-810	8.7 g/cm ³	42 Kg/mm ²	L-Ag12Cd	-	-	-	-
ALFA-201	10	46	36	8	625-815	8.7 g/cm ³	42 Kg/mm ²	-	-	-	-	-

***Alloys with Silicon available on request**

ALFA - 205 is a general purpose alloy which has highest joint strength and also provides resistance to corrosion in chlorine, sulphur and steam environments.

ALFA 209 has lowest brazing temperature range because of which it provides excellent flow characteristics. Its narrow melting range makes it suitable for rapid or slow methods of heating and also helps in flowing freely in narrow clearance joints.

ALFA - 207 may be used in brazing operations, requiring a low temperature, quick and complete penetration and neat joints of high strength that needs little or no finishing. It is used where joints are closely fitted and where it is desired to employ a single alloy effective in wide range of applications. It may be used in brazing steel, copper, brass, gunmetal, tin bronzes, aluminium, manganese bronzes, copper nickel alloys and nickel silver.

ALFA - 204 is versatile, high strength, free flowing and exhibits lowest melting point.

ALFA - 208 is free flowing and is suitable for general purpose work requiring higher brazing temperature. Its melting range is helpful where joint clearances are not uniform. Unless heating is rapid, care must be taken, that lower melting constituents do not separate by liquation.

ALFA - 203 is very versatile, high strength and is free flowing. It can be used to join a wide range of base materials.

ALFA - 207B is used for brazing joints with very wide gaps.

ALFA - 202 is very versatile, high strength, free flowing and exhibits low melting points. It can be used to join a wide range of base metals besides being economical.

ALFA - 203A is ideal for bridging wider gaps where work pieces are insensitive to heat. It is preferred for applications having short heating cycles.

Caution : The above brazing filler metals contains cadmium where in fumes produced during brazing are poisonous. Kindly refer to American National Standard Z49.1 Safety in Welding and Cutting for proper usage of these alloys.



Silver Brazing Alloys Without Cadmium

We have developed a range of cadmium free alloys keeping in view the requirements of our end users, which mainly consist of food and beverage industry. These alloys are suitable for use on most ferrous and non-ferrous materials. We offer numerous material compositions for general purpose and specialty applications which are available in **rods, strip, wire, powder, paste, preforms, clad tri-metal products and flux-cored wire and rods.**

Silver Brazing Alloys Without Cadmium

Product Code	Composition %			Melting Range	Density	Tensile Strength	Corresponding Standard				
	Ag	Cu	Zn	Celsius			DIN 8513	BS 1845	AWS A5.8	IS 2927	EN 1044
ALFA-309B	72	28	-	780-780	10.0 g/cm ³	35 Kg/mm ²	-	-	B Ag-8	BA Cu Ag 3	AG 401
ALFA-306	60	26	14	695-730	9.6 g/cm ³	48 Kg/mm ²	L-Ag60	AG 13	-	-	-
ALFA-305	50	34	16	688-774	9.1 g/cm ³	46 Kg/mm ²	-	-	B Ag-6	BA Cu Ag 9	-
ALFA-309	45	30	25	677-743	9.1 g/cm ³	51 Kg/mm ²	L-Ag44	AG 15	B Ag-5	BA Cu Ag 14	-
ALFA-308A	44	30	26	675-735	9.1 g/cm ³	50 Kg/mm ²	-	-	-	-	AG 203
ALFA-307	43	37	20	700-775	9.1 g/cm ³	46 Kg/mm ²	-	-	-	BA Cu Ag 16	-
ALFA-304	40	30	30	660-720	9.1 g/cm ³	46 Kg/mm ²	-	-	-	-	-
ALFA-308	35	32	33	685-755	9.0 g/cm ³	48 Kg/mm ²	-	-	B Ag-35	-	-
ALFA-303	30	38	32	680-765	8.9 g/cm ³	50 Kg/mm ²	L-Ag30	-	B Ag-20	-	AG 204
ALFA-307C	25	40	35	700-790	8.8 g/cm ³	45 Kg/mm ²	L-Ag25	AG 17	-	-	AG 205

ALFA 309B is suitable for furnace brazing in a protective atmosphere. It is very fluid and can be used on copper or copper alloys, stainless steel, nickel based alloys and carbon steel.

ALFA - 306 is used for brazing monel, silver and nickel alloys.

ALFA - 305 may be used where the use of brazing alloy containing cadmium as for food handling or process equipment is objectionable. It is also used in electrical industry. Due to broad melting range it is a better filler metal for filling wide joint clearances or forming large fillets.

ALFA-309 is a general purpose brazing alloy for use at higher brazing temperatures. It is an excellent filler metal for brazing brass parts.

ALFA-308A is popular cadmium free filler metal particularly for brazing in "Traction Motors"

ALFA-307 is similar to ALFA-309. It is also used for brazing of ferrous and non ferrous metals.

ALFA-304 has a wide melting range and used in brazing of copper based alloys, monel, nickel and mild steel.

ALFA-308 is a filler metal with intermediate temperature for use in brazing of ferrous and non ferrous metals.

ALFA-303 has moderate ductility which limits the joint design and application. It has good wetting characteristics and is free flowing.

ALFA-307C is an economical filler metal used for brazing ferrous metals, stainless steel, copper and brass. It is used in mechanical, electrical, refrigeration industries and for brazing musical instruments.



Silver Brazing Alloys With Tin

Product Code	Composition %				Melting Range	Density	Tensile Strength	Corresponding Standard				
	Ag	Cu	Zn	Sn				DIN 8513	BS 1845	AWS A5.8	IS 2927	EN 1044
ALFA -306Sn	60	30	-	10	600-720	9.8 g/cm ³	46 Kg/mm ²	-	-	B Ag-18	BA Cu Ag 7	AG 402
ALFA -311Sn	56	22	17	5	619-652	9.4 g/cm ³	48 Kg/mm ²	-	-	B Ag-7	BA Cu Ag 8	AG 102
ALFA -310Sn	55	21	22	2	630-660	9.4 g/cm ³	44 Kg/mm ²	L-Ag55Sn	-	-	-	AG 103
ALFA -309Sn	45	27	25	3	640-680	9.2 g/cm ³	43 Kg/mm ²	L-Ag45Sn	-	B Ag-36	-	AG 104
ALFA -304Sn	40	30	28	2	650-710	9.1 g/cm ³	44 Kg/mm ²	L-Ag40Sn	AG 20	B Ag-28	-	AG 104
ALFA -311SnB	38	32	28	2	650-720	9.1 g/cm ³	45 Kg/mm ²	-	-	B Ag-34	-	-
ALFA -307Sn	34	36	27	3	630-730	9.1 g/cm ³	46 Kg/mm ²	L-Ag34Sn	-	-	-	-
ALFA -303Sn	30	36	32	2	665-755	8.8 g/cm ³	48 Kg/mm ²	L-Ag30Sn	AG 21	-	-	AG 107
ALFA -307 SnA	25	40	33	2	680-760	8.8 g/cm ³	48 Kg/mm ²	L-Ag25Sn	-	B Ag-37	-	AG 108
ALFA -302	20	46	33.8	0.2	690-810	8.7 g/cm ³	43 Kg/mm ²	L-Ag20	-	-	-	AG 206

ALFA - 306Sn is similar to ALFA 309B in its applications . The tin content help in wetting the surface of stainless steel, carbon steel and nickel base alloys. It is specially used for vacuum applications.

ALFA - 311Sn is a low melting filler metal and does not contain cadmium. It is ideal for furnace brazing. It is used by the dairy and food industry where cadmium free joints are required. This brazing alloy is less prone to cause stress cracking on stainless steel and some nickel alloys. After brazing it gives a closer match with whitish metals such as stainless steel.

ALFA - 310Sn may be used on any nickel and nickel alloys, copper and copper alloys and steels.

ALFA-309Sn is a low temperature cadmium free alloy with free flowing characteristics.

ALFA-304Sn is a free flowing alloy for ferrous, non ferrous and dissimilar joints.

ALFA-311SnB is free flowing cadmium free filler metal used with ferrous and non ferrous base metals.

ALFA-307Sn is used for assembly of copper tubes in the refrigeration industry and on equipments and containers in the food industry. Presence of tin improves its fluidity and it has good wetting properties.

ALFA-303Sn is a free flowing alloy for ferrous, non ferrous and dissimilar metals with good fluidity.

ALFA-307SnA is economical filler metal and is useful on ferrous and non ferrous joints which do not require impact strength or high ductility.

ALFA-302 is used in brazing operations where brazing and heat treatment of steels is simultaneously done.





Brazing Alloys For Tungsten Carbide Tipped Tools

We manufacture excellent range of brazing filler metals containing nickel specifically for the tungsten carbide tipped tools industry because of its need of protection from crevice corrosion and higher temperature service properties. These alloys are available in forms of **rods, wire, foils or shims**.

Product Code	Composition %					Melting Range	Corresponding Standard							
	Ag	Cu	Zn	Cd	Others		Celsius	Density	Tensile Strength	DIN 8513	BS 1845	AWS A5.8	IS 2927	EN 1044
ALFA-405A	50	20	28	-	2Ni	660-750	9.0 g/ cm ³	45 Kg/mm ²	-	-	-	B Ag-24	-	-
ALFA-405	50	15.5	15.5	16	3Ni	632-688	9.5 g/ cm ³	45 Kg/mm ²	-	-	-	B Ag-3	BA Cu Ag 12	AG 351
ALFA-404	40	30	28	-	2Ni	671-775	8.9 g/ cm ³	50 Kg/mm ²	-	-	-	B Ag-4	BA Cu Ag 18	-
ALFA-404A	40	30	25	-	5Ni	660-860	9.0 g/ cm ³	50 Kg/mm ²	-	-	-	-	-	-
ALFA-501	-	60	39.7	-	0.3Si	875-895	8.4 g/ cm ³	40 Kg/mm ²	L-CuZn40	-	-	-	-	Cu 301
ALFA-501A	1	60	38.7	-	0.3Si	850-870	8.4 g/ cm ³	45 Kg/mm ²	-	-	-	-	-	-
ALFA-510	-	50	40	-	10Ni	890-920	8.9 g/ cm ³	54 Kg/mm ²	L-CuNi10Zn42	-	-	RBCuZn-D	-	Cu 305
ALFA-510A	1	50	40	-	9Ni	860-890	8.4 g/ cm ³	45 Kg/mm ²	-	-	-	-	-	-

ALFA-405A is low melting, free flowing, cadmium free and suitable for use in joining low carbon 300 series stainless steels (particularly food handling equipment and hospital utensils) and small tungsten carbide inserts for cutting tools.

ALFA-405 is particularly suitable for brazing carbide tool tips to tool shanks as it wets the carbide tool tip very satisfactorily. It has a wide wetting range, therefore, the solid and liquid portions do not tend to separate excessively. It is good filler metal for bridging gap. It has good corrosion resistant properties and is particularly suitable for brazing stainless steels also.

ALFA-404 is used for brazing carbide tip brazing. Similar to ALFA-405, but higher brazing temperature is required. It flows freely and does not contain cadmium.

ALFA-404A is used for brazing of tungsten carbide and stainless steels.

ALFA-501 is used for brass brazing steels, malleable cast iron, copper, copper alloys with melting temperatures greater than 950 °C, nickel and nickel alloys. It is also known as "**Silicon Bronze**".

ALFA-510 is often used for brazing tungsten carbide. It is also used with steel, nickel and nickel based alloys. This filler metal is unsuitable for protective atmosphere furnace brazing. It is also known as "**Nickel Bronze**".

ALFA-510A is similar to ALFA510 but the presence of silver in it improves joint strength.



Copper Phosphorus Brazing Alloys

We offer a wide range of copper phosphorus brazing alloys, which can be used in refrigeration, air conditioning and plumbing industry. These alloys are used extensively to join copper and copper alloy base metals (Brasses, Bronzes). They have self fluxing properties when used on copper. We can also customize the products as per customer applications and specifications. These brazing alloys are available in **rods, wires, strips, wire flattening, wire pre-forms, strip pre-forms, granules and spheres.**



Product Code	Composition %			Melting Range	Density	Tensile Strength	Corresponding Standard				
	Ag	Cu	P	Celsius			DIN 8513	BS 1845	AWS A5.8	IS 2927	EN 1044
ALFA-101	-	93	7	705-800	8.1 g/ cm ³	58 Kg/mm ²	L-CuP7	-	BCuP-2	BA Cu P2	CP 202
ALFA-101A	1	92	7	710-924	8.1 g/ cm ³	58 Kg/mm ²	-	-	-	-	-
ALFA-102	2	91	7	645-740	8.1 g/ cm ³	55 Kg/mm ²	L-Ag2P	-	BCuP-6	BA Cu P3	CP 105
ALFA-103	3	90	7	640-740	8.2 g/ cm ³	55 Kg/mm ²	-	-	-	-	-
ALFA-105	5	89	6	643-807	8.2 g/ cm ³	55 Kg/mm ²	L-Ag5P	-	BCuP-3	BA Cu P4	CP 104
ALFA-106	6	87	7	650-740	8.3 g/ cm ³	55 Kg/mm ²	-	-	BCuP-4	-	-
ALFA-110	10	85	5	640-800	8.4 g/ cm ³	54 Kg/mm ²	-	-	-	-	-
ALFA-115	15	80	5	643-802	8.4 g/ cm ³	54 Kg/mm ²	-	CP1	BCuP-5	BA Cu P5	CP 102
ALFA-118	18	75	7	650-750	8.4 g/ cm ³	50 Kg/mm ²	-	-	-	-	CP 101

ALFA - 101A is particularly suitable for resistance brazing applications. This filler metal is more ductile and less fluid at brazing temperature than other filler metals containing more phosphorous.

ALFA - 101 is extremely fluid at the brazing temperature. It will penetrate joints with very little clearance.

ALFA - 102 has high fluidity. It has ability to fill gaps at the lower end of its brazing range and is very fluid at high end.

ALFA - 105 may be used where very close fits cannot be held. It is best used with the lower joint clearance. It is majorly used in Air conditioning and Refrigeration industry.

ALFA - 106 is extremely fluid at brazing temperature. It provides more strength to joint than ALFA105.

ALFA - 115 is extremely fluid at brazing temperature. It provides more strength to joint than ALFA105.



Copper Based Brazing Alloys (Brasses And Bronzes)

These Brazing alloys include general purpose brasses, brasses with addition of nickel, high temperature copper alloys and copper for furnace brazing. All these alloys are economical to use and can be generally supplied in variety of forms like rods, wires, preforms, strips, powder & pastes. General purpose brasses can be used for brazing and for Oxy-Fuel Gas Braze-Welding process.



Product Code	Composition %					Melting Range	Density	Tensile Strength	Corresponding Standard				
	Cu	Zn	Ni	Si	Others				DIN 8513	BS 1845	AWS A5.8	IS 2927	EN 1044
ALFA-501	60	39.7	-	0.3	-	875-895	8.4 g/ cm ³	40 Kg/mm ²	L-CuZn40	-	-	-	Cu 301
ALFA-501A	60	38.7	-	0.3	1 Ag	850-870	8.4 g/ cm ³	45 Kg/mm ²	-	-	-	-	-
ALFA-502	60	39.4	-	0.3	0.3Mn	875-895	8.4 g/ cm ³	45 Kg/mm ²	-	-	-	-	-
ALFA-503	58	40.6	-	0.1	1 Sn,0.3Mn	866-888	8.4 g/ cm ³	39 Kg/mm ²	-	-	RBCuZn-C	-	-
ALFA-504	57	42	-	-	1 Sn	888-899	8.4 g/ cm ³	41 Kg/mm ²	-	-	RBCuZn-A	-	-
ALFA-510	50	40	10	-	-	890-920	8.9 g/ cm ³	54 Kg/mm ²	L-CuNi10Zn42	-	RBCuZn-D	-	Cu 305
ALFA-510A	50	40	9	-	1 Ag	860-890	8.4 g/ cm ³	45 Kg/mm ²	-	-	-	-	-
ALFA-506	96	-	-	-	4.7 Sn0.3P	-	8.2 g/ cm ³	55 Kg/mm ²	-	-	-	-	-

ALFA - 501 is used for brass brazing steels, malleable cast iron, copper, copper alloys with melting temperatures greater than 950°C, nickel and nickel alloys. It is also known as **"Silicon Bronze"**.

ALFA - 502 is used for copper, malleable and cast iron brazing.

ALFA - 503 is used to join steels, copper, copper alloys, nickel, nickel - base alloys and stainless steel. It is used with torch, furnace and induction brazing process. It is called **"Super Brass"**.

ALFA - 504 is used to join steels, copper, copper alloys, nickel, nickel - base alloys and stainless steel where corrosion resistance is not important.

ALFA - 510 is often used for brazing tungsten carbide. It is also used with steel, nickel and nickel based alloys. This filler metal is unsuitable for protective atmosphere furnace brazing. It is also known as **"Nickel Bronze"**.

ALFA - 510A is similar to ALFA510 but the presence of silver in it improves joint strength.

ALFA - 506 may be used on steels, nickel and nickel alloys. It is also known as **"Phosphor Bronze"**.



Aluminium and Zinc-Aluminum Alloys

Backed by our sound expertise in the specific industry, we are presenting wide gamut of aluminium filler wires that are developed in compliance with international standards of quality using industry grade raw material. Our Aluminium product range can be put for many applications by adding one or more elements to increase the strength. Adding different elements also enhances the qualities that make it suitable for diverse applications. These alloys are available in forms of **rods, wires, flux cored wires and rods**.

Product Code	Composition %								AWS A5.10
	Si	Fe	Cu	Mn	Zn	Al	Mg	Cr	
AIFA -ER1100	0.25 max	0.40 max	0.05-2.20 max	0.05 max	0.10 max	99 min	-	-	ER1100
AIFA -ER4043	4.5-6.0	0.80 max	0.30 max	0.05 max	0.10 max	Rest	.05 max	-	ER4043
AIFA -ER4047	11.0-13.0	0.80 max	0.30 max	0.15 max	0.20 max	Rest	.10 max	-	ER4047
AIFA -ER5356	0.25 max	0.40 max	0.10 max	0.05-0.20 max	0.10 max	Rest	4.5-5.5 max	0.05-0.020 max	ER5356
AIFA -AlZn98	-	-	-	-	98	2	-	-	-
AIFA -AlZn78	-	-	-	-	78	22	-	-	-



Fluxes

We manufacture a wide range of fluxes, which can be put to varied uses. Fluxes consist of mild organic acid or strong inorganic acid which promotes high speed cleaning of metals with strong surface oxides and are generally used for silver brazing, copper brazing, solder and aluminum.

Product Code	Applications	Remarks
Alfa SILFLUX	It is an all purpose, low temperature flux for use in brazing both ferrous and non-ferrous metals and alloys using silver brazing filler metals. It begins to melt and dissolve oxides at 340°C and becomes fully molten at about 600°C and provides adequate protection upto 750°C. Excellent in hot rodding operation used to braze weld where the hot brazing rod is plunged into the dry powder. It can be easily cleaned up in hot water.	Equivalent to Esab Rupatam A Flux
Alfa SILPASTE	It is general purpose, low temperature flux in paste form which provides creamy smooth consistency and excellent adhesion. It begins to melt and dissolve oxides at 320°C, is fully molten at 600°C and it provides full protection upto 870°C. It is used for brazing all ferrous and non-ferrous alloys. It can be easily cleaned up in hot water.	Equivalent to Handy Paste Flux.
Alfa BRONZOFLUX	It is used for brazing various ferrous and non-ferrous metals and alloys using Cu-Sn (Bronze) based filler metals.	Equivalent to Esab Bronzotectic Flux.
Alfa BRONZOPASTE	it is similar to Alfa Bronzoflux but is in paste form.	Equivalent to Esab Bronzotectic Flux.

	Packing	Weight
Silver Brazing Fluxes	Plastic Boxes	100gms., 500 gms.
Brass and Bronze Brazing Fluxes	Plastic Boxes	100gms., 500 gms.

**Packing can be customized as per customers' requirement.



BARE RODS



WIRES



FLUX COATED RODS



STRIPS & FOILS



RINGS & MULTI TURN RINGS



TRIMETAL / SANDWICH FOILS



COPPER PHOSPHOROUS FLATS



FLUXES



COINS



SLUGS



GRANULES



PREFORMS



Bare Rods

	Diameter	Length
Silver Brazing Alloys	1.00 -> 6mm	300-> 1000mm
Copper Phosphorous Brazing Alloys (Square & Round)	1.50 -> 6mm	300-> 500mm
Brass Brazing Alloys	1.20 -> 6mm	300-> 1000mm

	Packing	Weight
Silver Brazing Alloys	Plastic Box	1kg, 5 kg
Copper Phosphorous Brazing Alloys (Square & Round)	Plastic Box	5 kg
Brass Brazing Alloys	Plastic Box	5 kg

**Packing can be customized as per customers's requirement.



Wires

	Diameter	Weight	Packing
Silver Brazing Alloys	0.25 -> 5.00mm	1 Kg, 7Kg	Coils and Spools
Copper Phosphorous Brazing Alloys (Round)	1.60 -> 5.00.mm	1 Kg, 7Kg	Coils and Spools
Brass Brazing Alloys	0.50 -> 5.00mm	1 Kg, 7Kg	Coils and Spools

**Packing can be customized as per customers's requirement.



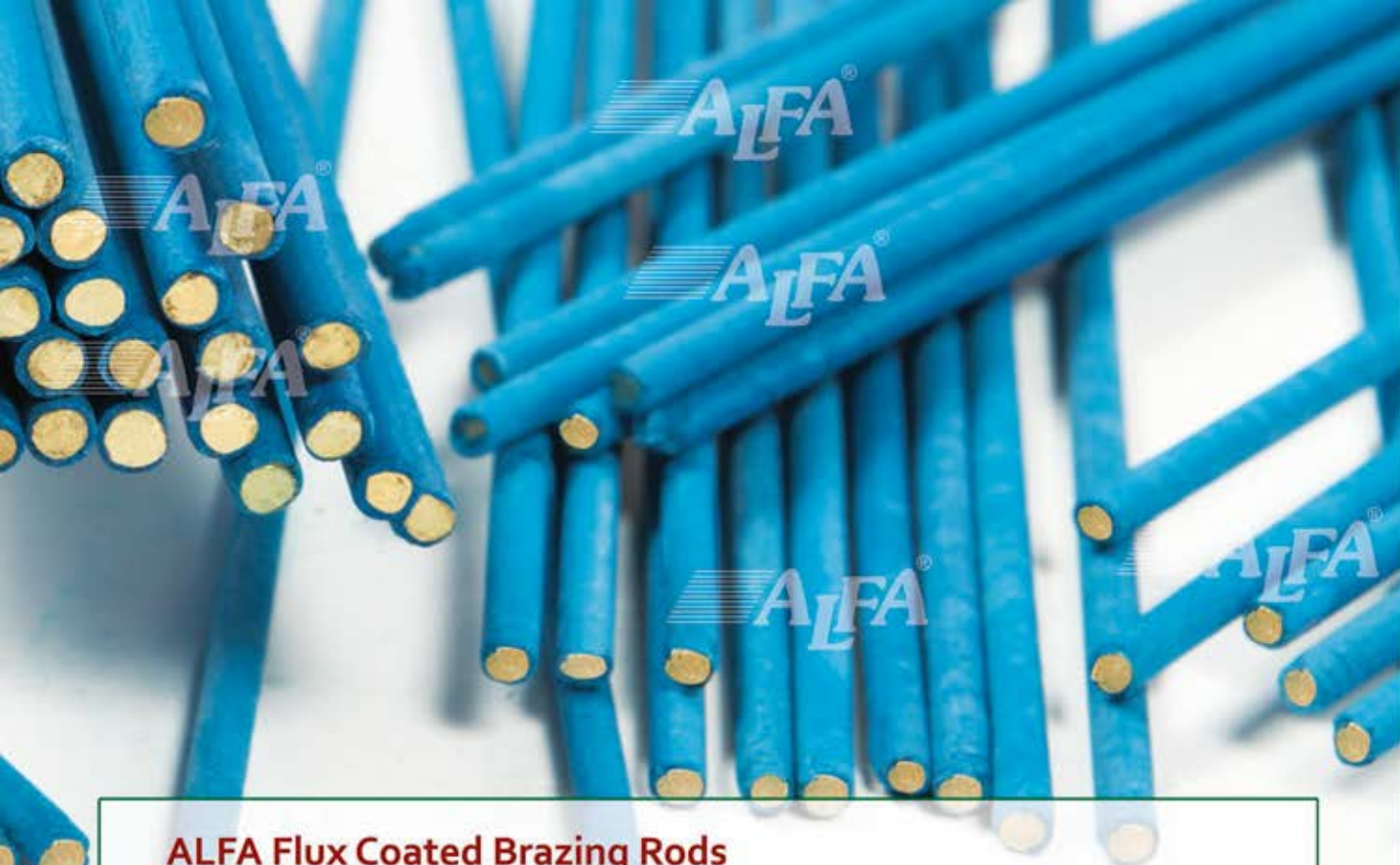
Flux Coated Rods

Brazing Filler Metal in bare rods form when coated with relevant flux forms Flux Coated Rods. The main elements in Flux Coated Rods are:

- 1) Diameter and length of the bare rod to be coated
- 2) Outer diameter of the Flux coated rod

Why Flux coated brazing rods are preferred over traditional separate rod and flux application:

- 1) There is no need to use a separate flux.
- 2) Flux coated brazing alloy can be used directly on the job without separate application of flux making the operation quick and economical.
- 3) Compatibility of flux with the brazing alloy as supplied by the same manufacturer.
- 4) There is uniform flow of flux along with the brazing alloy during the brazing operation.
- 5) It eliminates the need for final fluxing step. As a result the final cleaning is easier, and fewer contaminants are contained in rinse water.



ALFA Flux Coated Brazing Rods

We offer ALFA range of Flux coated brazing rods. Our range includes

- 1) Flux Coated Silver Brazing Alloys.
- 2) Flux Coated Brass Brazing Alloys.

Flux Coated Silver Brazing Alloys

Composition Basis

Silver, Copper, Zinc, with or without Cadmium. Silver Brazing Alloys filler metal can be selected based on specifications laid out by

- 1) IS 2927-1975 ii) BS:1845 iii) AWSA5.8 iv) DIN8513 v) EN1044

Characteristics

Lowest melting point
Excellent flowing characteristics
Excellent capillary action
Strong, clean and smooth joints

Delivery Forms

STANDARD SIZES				
Diameter X Length (mm)	1.60 X 500	2.00 X 500	2.50 X 500	3.15 X 500
Outer Diameter (mm)	3.25	4.00	5.00	6.30

Customisation:

Bare rod diameter from 1.50 to 3.15mm
Standard length from 350mm to 500mm
Other exterior diameters on customers' request



Flux Coated Brass Brazing Alloys

Composition Basis

Copper, Zinc, with additives

Characteristics

Provides excellent wetting action.

No objectionable fuming.

Very fast and economical operation.

Applied with high quality coating to speed up brazing time.

Flexible and thin flux coating does not peel off even after bending.

Flux coating has extended life span.

Delivery Forms

STANDARD SIZES				
Diameter X Length (mm)	1.60 X 500	2.00 X 500	2.50 X 500	3.15 X 500
Outer Diameter (mm)	2.00	2.50	3.00	3.65

Customisation:

Bare rod diameter from 1.50 to 3.15mm

Standard length from 350mm to 500mm

Other exterior diameters on customers' request

Flux coating is available in a variety of colours. Please specify your preferred colour & we will surely give you the best match. Any colour can be picked for coating on the brazing rods.



Strips and Foils

	Thickness	Width
Silver Brazing Alloys	0.07 -> 1.60mm	2.00mm->100mm
Copper Phosphorous Brazing Alloys	0.10 -> 1.00mm	2.00mm->100mm
Brass Brazing Alloys	0.10 -> 1.00mm	2.00mm->100mm

	Packing	Weight
Silver Brazing Alloys	Spools for strips and Plastic Box for Foils	1 kg
Copper Phosphorous Brazing Alloys	Spools for strips and Plastic Box for Foils	1 kg
Brass Brazing Alloys	Spools for strips and Plastic Box for Foils	1 kg

**Packing can be customized as per customers's requirement.



Rings and Multi turn Rings

	Wire Diameter	Inner Diameter
Silver Brazing Alloys	0.50 -> 3.00mm	3.00mm->100mm
Copper Phosphorous Brazing Alloys (Round)	1.00 -> 3.00mm	3.00mm->100mm
Brass Brazing Alloys	1.00 -> 3.00mm	3.00mm->100mm

	Packing	Weight
Silver Brazing Alloys	Plastic Boxes	1 kg; 5 Kg
Copper Phosphorous Brazing Alloys (Round)	Plastic Boxes	1 kg; 5 Kg
Brass Brazing Alloys	Plastic Boxes	1 kg; 5 Kg

**Packing can be customized as per customers's requirement.

Trimetal / Sandwich Foils



Trimetals strips consist of two layers of silver brazing alloy clad into a copper core and are very popular for brazing of carbides into steel especially large pieces.

The copper core of the strip absorbs & relieves the stresses caused by the difference in thermal expansion between carbide and base metal, thus helping to prevent cracking.

Higher joint tensile strength performances are obtainable with Ag₄₉MnNi/1 TR TOP, thanks to its modified copper central core.

For very large carbide pieces or very hard carbide types, Ag₄₉MnNi/1 TR 161, with higher copper percentage is advised for the maximum reduction of internal stresses.

Product Code	Composition %					Melting Range		Description
	Ag	Cu	Zn	Ni	Mn	Celsius	Density	
AgFA -Ag49MnNi/1Tr	49	27.5	20.5	0.5	2.5	670-690	9.0 g/cm³	Copper Core - Ratio 1:2:1
AgFA -Ag49MnNi/1Tr TOP	49	27.5	20.5	0.5	2.5	670-690	9.0 g/cm³	Modified Copper Core - Ratio 1:2:1
AgFA -Ag49MnNi/1Tr 161	49	27.5	20.5	0.5	2.5	670-690	9.0 g/cm³	Copper Core - Ratio 1:6:1
AgFA -Ag49MnNi/1Tr 111	49	27.5	20.5	0.5	2.5	670-690	9.0 g/cm³	Copper Core - Ratio 1:1:1
AgFA -Ag40Ni Tr	40	30	28	2	-	670-780	8.9 g/cm³	Copper Core - Ratio 1:2:1
AgFA -Ag38Mn	38	26	24	4.5	7.5	650-690	8.9 g/cm³	Copper Core - Ratio 1:2:1

	Thickness	Width
Strips	0.10 -> 1.00 mm	1.30 -> 80 mm



Integrated Management System

Certificate No.: 001-17043 - Q
Certificate No.: 001-17043 - E
Certificate No.: 001-17043 - O

Certificate of Approval

This is to certify that the Integrated Management System
at

Indian Solder and Braze Alloys Pvt.Ltd.



62, Mohkampur Industrial Area, Phase - I, Delhi Road,
Meerut - 250 002, Uttar Pradesh, India.

has been examined by Assessors of QMS International Certifications Pvt. Ltd.
and found to be conforming to the requirements of

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

In respect of the following activities:

**Manufacturing and Supply of Silver Brazing Rods, Copper Brazing
Rods, Brass Brazing Rods, Flux Coated Rods, Foils, Rings, Preforms,
Washers, Aluminium Filler Wires and Stainless Steel Filler Wires.**

ISO 9001- Current Issue Date 24/06/2023, Valid till 20/09/2026*

Original Certification 11/12/2002

ISO 14001- Current Issue Date 24/06/2023, Valid till 20/09/2026*

Original Certification 21/09/2017

ISO 45001- Current Issue Date 24/06/2023, Valid till 20/09/2026*

Original Certification 21/09/2017

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E-mail : qmscip@gmail.com
Web : www.qms-int.com

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Sanjay Kumar Kaushik
Managing Director



* Subject to compliance with requirements specified in Service Specification & Agreement
* To check the validity of this certificate please visit www.jas-anz.org/register





IMAGINE EYE : 9719007698

Reach us :

Indian Solder and Braze Alloys Pvt. Ltd.

Established 1974

ISO 9001:2015 ; ISO 14001 : 2015 ; ISO 45001 : 2018 Certified

#62, Mohkampur Industrial Area Phase-I,
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