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for Welding, Brazing, Cutting & Cladding

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CERTIFIED ORGANISATION

ALFA[®]

ABOUT US

One of the most recognized names in the Welding Industry today, Shree Kailaji Alloys Pvt Ltd & Indian Solder & Braze Alloys established their operations in India in 1975 focusing on the Imports and Supply of Welding and Brazing consumables in India to the industry. SKAPL & ISA have now become the leading manufacturers of Welding & Brazing Products for the Industrial and Welding Markets. Using the best manufacturing techniques, we, at SKAPL & ISA provide the best services focusing on customer satisfaction.

Leveraging on our rich vendor base, we trade in a wide variety of welding products to meet the requirement of our domestic as well as global clients. Our range includes Stainless Steel, Aluminum, Nickel and Carbon Steel Welding Wires, Aluminum Bronze, Pure Copper, Nickel Aluminum Bronze and Special Welding Consumables and our brazing segment includes High Quality Silver, Brass, Phosphorus and Copper Alloys.

In India, we have our dealer network across all major towns and cities through its own offices and distribution network. With our head office located in Mumbai, the financial capital of India, we have access to various cities within the country. Through our Offices in Pune, Meerut, Delhi and Hyderabad we can cater to our client's query in the most efficient and within the shortest time frame. Over the years, we have been actively engaged in the trade of allied equipment by acknowledging the discerning demand of welding and cutting machines across the international market. Thus noticing the requirement of our products in the market, we ensure that we also offer our clients with excellent after sales support as well.

With relentless commitment to quality, consistent dedication to customer satisfaction and unparalleled standards of service, SKAPL & ISA have created a benchmark for quality welding & brazing products in India. With a wide range of Consumables, we have established ourselves as value leaders across various product categories in this industry.

Our team of professionals provides our customers with the best possible solution in order to meet their specific requirements. In lines with our vision we strive to have a people oriented approach and focus our service to reduce the gap between Quality and Effective utilization of resources. All products are designed with utmost care for the safety of the buyer which help gain a sense of trust and loyalty with the company. The Company believes in providing the most suitable options with an honest outlook to ensure that the heights of excellence are achieved.



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ALFA[®]

STAINLESS STEEL

BRAND	COMPOSITION	SIZE [MM]	AVAILABLE FORMS	CHARACTERISTICS / APPLICATIONS
ALFA 304L	C: 0.035 Mn: 1.83 Si: 0.40 S: 0.005 Cr: 18.00 P: 0.043 Ni: 9.0	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA 304L is used for TIG, MIG, Flux Cored and Submerged arc welding of unstabilized stainless steels such as types 301, 302, 304, 305, 308. This filler metal is most popular grade among stainless steels used for general purpose applications where corrosion conditions are moderate.
ER 308L	C: 0.03 Mn: 1.75 Si: 0.84 Cr: 19.74 Ni: 9.91 Mo: 0.75 P: 0.03 S: 0.03 Cu: 0.75	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA ER308L is designed for welding austenitic steels type 18 Cr 10 Ni or similar. The wire is suitable for welding titanium and niobium stabilized steels such as ASTM 321 and ASTM 347. The higher silicon content will improve fluidity and minimize spatter, giving a nicer bead appearance.
ER 308LSI	C: 0.020 Mn: 1.75 Si: 0.84 Cr: 19.91 Ni: 10.08 Mo: 0.06 P: 0.02 S: 0.02 Cu: 0.74	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	A continuous solid corrosion resisting chromium-nickel wire for welding of austenitic chromium nickel alloys of 18% Cr - 8% Ni-type. ALFA 308LSI has a good general corrosion resistance. The alloy has a low carbon content making it particularly recommended where there is a risk of intergranular corrosion.
ER 308H	C: 0.06 Mn: 1.8 Si: 0.40 Cr: 20.6 Ni: 10 S: 0.02 P: 0.03 Mo: 0.40 Cu: 0.70	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA 308H is used to provide a high carbon deposit, a minimum of 0.04% carbon for high temperature applications. The high carbon deposit creep strength and a high tensile strength at elevated temperature.
ER 309L	C: 0.02 Mn: 1.77 Si: 0.38 Cr: 23.86 Ni: 12.43 Mo: 0.74 P: 0.02 S: 0.02 Cu: 0.74	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA 309L is of a high alloy 23 Cr 13 Ni wire primarily intended for surfacing low alloy steels and for dissimilar welding between mild steels and stainless steels offering a ductile and crack resistant welding.
ER 309LSI	C: 0.022 Mn: 1.80 Si: 0.85 Cr: 23.70 Ni: 12.95 Mo: 0.74 P: 0.02 S: 0.02 Cu: 0.74	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	A continuous solid corrosion resistant chromium-nickel wire for welding of similar steels, wrought and cast steels of 23% Cr-12% Ni types. The alloy is also used for welding of buffer layers on CMn steels and welding of dissimilar joints. When using the wire for buffer layers and dissimilar joints it is necessary to control the dilution of the weld.
ER 316L	C: 0.02 Mn: 1.73 Si: 0.38 Cr: 19.10 Ni: 12.43 Mo: 2.36 P: 0.02 S: 0.02 Cu: 0.74	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA ER 316L is used primarily for welding low carbon molybdenum-bearing austenitic alloys. It is engineered to a very precise analysis to create a weld deposit of high purity, superior hot cracking and corrosion resistance.

BRAND	COMPOSITION	SIZE (MM)	AVAILABLE FORMS	CHARACTERISTICS / APPLICATIONS
ER 316H	C: 0.05 Mn: 1.75 Si: 0.50 Cr: 19 Ni: 12 S: 0.03 P: 0.03 Mo: 2.4 Cu: 0.75	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	This filler is designed for welding 316/316H austenitic stainless steels operating at high temperatures (500-800 Degrees) under long term creep conditions. This filler metal can also be used for welding 321/321H and 347/347H grades in high temperature structural service. This is particularly important in thick highly restrained weldments.
ER 316Lsi	C: 0.022 Mn: 1.75 Si: 0.84 Cr: 19.20 Ni: 12.50 Mo: 2.15 P: 0.02 S: 0.02 Cu: 0.74	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	A continuous, solid, corrosion-resistant, chromium-nickel-molybdenum wire for welding austenitic stainless alloys of the 18% Cr / -8% Ni and 18% Cr -10% Ni -3% Mo types. ALFA 316LSi has good general corrosion resistance; in particular, the alloy has very good resistance to corrosion in acid and chlorinated environments.
ER 309Lmo	C: 0.03 Mn: 1.5 Si: 0.40 Cr: 24 Ni: 13 S: 0.03 P: 0.03 Mo: 2.5 Cu: 0.70	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA ER309Lmo is excellent wire for overlays and for joining 316, 316L to carbon steels and for different joints. The weld metal is low carbon 25Cr-12Ni-2.5Mo stainless steel. Excellent oxidization resistance at high temperature can be obtained suitable of welding of dissimilar metals.
ER 310	C: 0.09 Mn: 1.76 Si: 0.35 Cr: 26.73 Ni: 20.75 Mo: 0.74 P: 0.02 S: 0.02 Cu: 0.74	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA ER 310 is used for the welding of stainless steels of similar composition in wrought or cast form. The weld deposit is fully austenitic and calls for low heat during welding. This filler metal can also be used for dissimilar welding.
ER 312	C: 0.15 Mn: 1.5 Si: 0.40 Cr: 30 Ni: 9.5 S: 0.03 P: 0.03 Mo: 0.70 Cu: 0.50	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA ER 312 is used to weld cast alloys of similar composition and is used to weld dissimilar metals and weld overlays. During the welding of similar cast alloys, limit the welding to two or three layers only.
ER 317	C: 0.03 Mn: 1.75 Si: 0.40 Cr: 19.50 Ni: 14.0 Mo: 3.5 P: 0.02 S: 0.02 Cu: 0.74	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA ER 317 is used for welding stainless steels with similar composition. Due to its higher Molybdenum content, this alloy offers high resistance to pitting and crevice corrosion. Lower carbon makes the weld metal less susceptible to intergranular corrosion.
ER 318	C: 0.035 Si: 0.50 Mn: 1.7 Cr: 18.95 Ni: 11.4 Mo: 2.45 Nb+	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA ER 318 is a columbium-stabilized stainless steel with excellent corrosion resistance. Used to weld 318 or 316 type stainless steel.

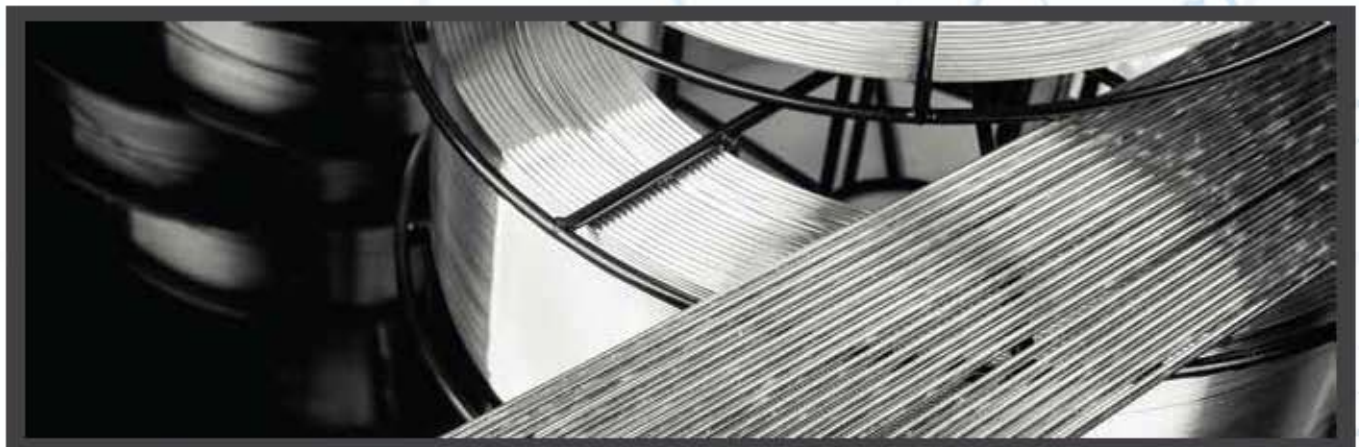
BRAND	COMPOSITION	SIZE (MM)	AVAILABLE FORMS	CHARACTERISTICS / APPLICATIONS
ER 320	C: 0.04 Cr: 20 Ni: 33.50 Mo: 2.30 Mn: 2.05 Si: 0.35 P: 0.03 S: 0.03 Cu: 3.5	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ER320 is used to weld metals of similar composition in wrought and cast forms. The weld metal provides exceptionally good corrosion resistance to a wide range of chemical environments. This being a fully austenitic alloy, it requires low heat input during welding.
ER 320LR	C: 0.02 Si: 0.14 Mn: 1.5-2.0 Cr: 19.73 Ni: 33.48 Mo: 2.0-3.0 P: 0.014 S: 0.01 Cu: 3.0-4.0 Nb: 0.3	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	Alloy ER 320LR has a composition similar to Alloy ER 320, except that carbon, silicon, phosphorus and sulfur levels are kept at lower levels as well as columbium and manganese being specified at a narrower range.
ER 321	C: 0.08 Cr: 19.5 Ni: 9.75 Mo: 0.75 Mn: 1.5 Si: 0.50 P: 0.03 S: 0.03 Cu: 0.75	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	This filler metal is titanium stabilized stainless steel used for welding of 321 or 308 type steels.
ER 347	C: 0.04 Cr: 19.5 Ni: 9.5 Nb: 0.40 Mo: 0.30 Mn: 1.30 Si: 0.40 P: 0.025 S: 0.015 Cu: 0.10	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA ER 347 is a columbium-stabilized stainless steel welding wire used to weld types 321 and 347. Addition of columbium reduces the possibility of chromium carbide precipitation and consequent intergranular corrosion.
ER 410	C: 0.09 Mn: 0.42 Si: 0.33 Cr: 12.68 Ni: 0.59 Mo: 0.74 P: 0.02 S: 0.02 Cu: 0.74	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA ER 410 is used to weld type 403, 405, 410 and 416. It is also used for welding overlay on carbon steels to resist corrosion, erosion or abrasion. This material being an air hardening type, calls for preheating of the joint to 350 Degree Fahrenheit before welding.
ER 410NiMo	C: 0.06 Mn: 0.6 Si: 0.5 Cr: 11.5 Ni: 4.5 S: 0.03 P: 0.03 Mo: 0.5 Cu: 0.75	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA 410 is designed to weld materials of similar chemical composition in cast and wrought forms. This electrode is also used to overlay mild and low alloy steels. Preheat and inter-pass temperatures of not less than 300°F (150°C) are recommended during welding.
ER 430	C: 0.05 Mn: 0.35 Si: 0.28 Cr: 16.40 Ni: 0.59 Mo: 0.74 P: 0.02 S: 0.02 Cu: 0.74	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA ER 430 is a ferrite stainless steel, which offers good ductility in heat treated condition. In addition to the application of welding similar alloys, it is also used for overlays and thermal spraying.

BRAND	COMPOSITION	SIZE (MM)	AVAILABLE FORMS	CHARACTERISTICS / APPLICATIONS
ER 430LNB	C: 0.030 Mn: 0.59 Si: 0.5 Cr: 15.5-17.0 Ni: 0.5 Mo: 0.5 Nb: 0.4-0.6 Ti: 0.1-0.5 Cu: 0.5 P: 0.03 S: 0.02	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	A continuous ferritic stainless solid wire with low carbon content, 16% Cr and stabilized with Nb, for welding similar and matching steels. ALFA 430LNB is developed and designed for the automotive industry and used for production of exhaust systems. The wire should be used when there is a need for good resistance to corrosion and thermal fatigue.
ER 306/304	C: 0.019 Cr: 20.5 Cu: 1.5 Fe Balance Mn: 1.7 Mo: 4.5 Ni: 25.0 P: 0.01 Si: 0.35 S: 0.015	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	This filler is used for welding materials of similar chemical composition, which is used for fabrication of equipment and vessels for handling of sulfuric acid & many chloride containing media. It is also used for joining 317L type material where improved corrosion resistance in specific media is needed.
ER 630	C: 0.03 Mn: 0.55 Si: 0.45 Cr: 16.7 Ni: 4.7 Mo: 0.2 Nb: 0.24 Cu: 3.5 P: 0.02 S: 0.02	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig	ER630 classification is designed primarily for welding ASTM A664 type 630 and some other precipitation-hardening stainless steels. The composition is modified to prevent the formation of ferrite networks in the martensitic microstructure, which has a great effect on mechanical properties.
ER 16-8-2	C: 0.10 Cr: 15.30 Cu: 0.18 Mn: 1.33 Mo: 1.16 Ni: 8.01 N: 0.051 P: 0.024 Si: 0.44 S: 0.008	Tig: 1.2, 1.6, 2.0, 2.4, 3.2 Mig: 0.8, 1.0, 1.2	Solid Tig & Mig	ALFA Alloy ER 16-8-2 is well suited for welding catalytic crackers, thick wall steam piping, and furnace parts, as well as components in the petrochemical, chemical processing, and power generation industries. This filler metal depends on a very carefully balanced chemical composition to develop its fullest properties.



MILD STEEL

BRAND	COMPOSITION	SIZE [MM]	AVAILABLE FORMS	CHARACTERISTICS / APPLICATIONS
ER 70S6	C: 0.08 Mn: 1.55 Si: 0.80-1.16 P: 0.012 S: 0.011 Cr: 0.14 Mo: 0.14 Ni: 0.14 V: 0.02 Cu: 0.49	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	This wire electrode is suitable for joint welding in the construction of boilers, containers and building structures. This wire has been designed to provide X Ray quality porosity free welds. High tensile strength in as welded condition.
ER 70S8	C: 0.06 Mn: 1.45 Si: 0.72 P: 0.013 S: 0.010 Cr: Mo: Ni: 0.12-0.20 Cu: <0.50	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	ALFA 70S8 is a general purpose wire for both Gas Metal Arc Welding and TIG welding of Carbon Steels, Excellent for Gas Metal Arc Welding with Argon+Co2 Mixtures
ER 70S2	C: 0.06 Ni: 0.14 Mn: 1.10 V: 0.02 Si: 0.54 Cu: 0.49 P: 0.007 S: 0.008 Cr: 0.14 Mo: 0.14 Ti: 0.06-0.16 Zr: 0.02-0.12 Al: 0.05-0.15	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	ALFA ER 70S2 a triple de-oxidised wire for giving radiographic quality TIG Welds. Can be used for Gas Metal Arc Welding. This is a copper coated wire, specially suitable for welding of light gauge mild steel wire in all position, including root for pipes & Tubes etc
ER 70S3	C: 0.07 Mn: 1.17 Si: 0.84 P: 0.010 S: 0.010 Cr: 0.14 Mo: 0.14 Ni: 0.14 Cu: 0.48 V: 0.02	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	70S-3 is commonly a copper-coated carbon steel that contains well balanced levels of manganese and silicon. Yielding a slag-free quality weld deposit on most steels, it provides excellent welder satisfaction for postweld cleanup.
ER 70SA-1	C: 0.08 Cu: 0.12 Mn: 1.20 Mo: 0.60 P: 0.01 Si: 0.80 S: 0.01	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	70S-A1 is commonly a copper coated carbon steel that contains a well balance chemistry level and 0.5% molybdenum added to increase the strength at elevated temperatures while yielding an improved corrosion resistance. 70S-A1 has a cold cracking resistant weld deposit but will likely have reduced notch toughness.



ALUMINIUM

BRAND	COMPOSITION	SIZE (MM)	AVAILABLE FORMS	CHARACTERISTICS / APPLICATIONS
ER 1100	Si: 0.24 Fe: 0.3 Cu: 0.50-0.20 Mn: 0.04 Zn: 0.09 Al: 98 Others: 0.05 each - 0.15 total Be: 0.0002	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig	ALFA 1100 or NG1 is use for welding of pure aluminum and its constructions. It is relatively soft alloy that is very formable and it is used extensively in thin-gauge and foil products and has good welding characteristics.
ER 1070	Si: <0,20 Fe: <0,25 Cu: <0,04 Mn: <0,03 Mg: <0,03 Zn: <0,04 Be: <0,0003 Ti: <0,03 V: <0,05 Others: <0,03 Al: 99.69	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig	1070 is highly resistant to chemical attack and weathering. It is a relatively soft alloy that is very formable and it is used extensively in thin-gauge and foil products. It has good welding characteristics. One characteristic feature of the alloy is the bright finish obtained by anodising. Non-heat treatable.
ER 4043	Si: 4.50-6.0 Fe: 0.79 Cu: <0.30 Mn: 0.04 Mg: 0.04 Zn: <0.10 Be: <0.0003 Ti: 0.19 Others: <0.05 Others: total <0.15	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Electrode	ALFA 4043 is one of the most widely used welding and brazing alloys and can be classed as a general purpose filler alloy. The silicon additions result in improved fluidity (wetting action) to make the alloy a preferred choice by welders. The alloy is not sensitive to weld cracking and produces bright and almost smut free welds. Not recommended for anodizing. Non-heat treatable.
ER 4047	Si: 11.00-13.00 Fe: 0.4 Cu: <0.30 Mn: <0.15 Mg: <0.10 Zn: <0.20 Be: <0.0003 Ti: <0.15 Others: <0.05 Others: Total <0.15	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig	This weld metal is used for aluminium-silicium casting alloy with a Si content upto 12%. Good mechanical characteristics, an excellent corrosion resistance and a low melting point ensure high quality welding results.
ER 5356	Si: <0.25 Fe: <0.40 Cu: <0.10 Mn: 0.05-0.20 Mg: 4.50-5.50 Cr: 0.05-0.20 Zn: <0.10 Be: <0.0003 Ti: 0.06 - 0.20 Others: <0.05 Others: Total <0.15	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig	Tig welding rod for AlMg alloys containing upto 5% Mg. It is used for welding of high strength Al-Mg alloys. This is widely used in Automobile and Marine Industry for High Corrosion resistance.
ER 5183	Si: <0.40 Fe: <0.40 Cu: <0.10 Mn: 0.50 - 1.00 Mg: 4.30 - 5.20 Cr: 0.05-0.25 Zn: <0.25 Be: <0.0003 Ti: <0.15 Others: <0.05 Others: Total <0.15 Al: Balance	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig	This tig rod is used for AlMg alloys. It is seawater resistant weld metal. Thorough cleaning of the workpiece beavels is necessary. Thicker plate materials require preheating to 150 Degree C.
ER 5556	Si: <0.25 Fe: <0.40 Cu: <0.10 Mn: 0.50 - 1.0 Mg: 4.7 - 5.5 Cr: 0.05 - 0.20 Zn: 0.20 Be: <0.0003 Ti: 0.05 - 0.20 Others: <0.05 Others: Total <0.15	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig	Continuous solid wire suitable for welding of aluminium alloys with up to approx. 5 % Mg that are not age-hardenable and alloys where a higher tensile strength is required. The corrosion resistance in marine atmosphere is high.

DUPLEX & SUPER DUPLEX

BRAND	COMPOSITION	SIZE (MM)	AVAILABLE FORMS	CHARACTERISTICS / APPLICATIONS
ER 2209	C: 0.02 Si: 0.40 Mn: 1.70 Cr: 22.80 Ni: 7.80 Mo: 2.90 N: 0.15 P: 0.02 S: 0.02 Cu: 0.74	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA 2209 is filler material designed to weld duplex stainless steels such as UNS Number N31803. The welds are characterized by high tensile strength and improved resistance to stress corrosion cracking and pitting. The wire is lower in ferrite compared to that of base material.
ER 2504	C: 0.02 Si: 0.35 Mn: 0.70 Cr: 25.0 Ni: 9.00 Mo: 3.80	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	Super Duplex stainless steel, resistant to inter crystalline corrosion. Very good resistance to pitting corrosion and stress corrosion cracking due to the high CrMo content. It is well suited for conditions in offshore application, particularly for welding of super-martensitic stainless steels.
ER 2663	C: 0.2 Cr: 25 Ni: -6 Mn: 0.7 Si: 0.9 S: 0.02 P: 0.01 Mo: 3.1 Cu: 1.7 N: 0.15	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	ALFA 2553 is used for welding matching ferritic-austenitic superduplex stainless steel base materials containing ~1.5%Cu. The addition of Cu provides enhanced corrosion resistance to sulphuric acid in comparison to other superduplex alloys; the Cu also provides benefits in terms of wear resistance and cavitation resistance.
ER 2507	Cr: 25 Ni: 7 Mo: 3.5 C: 0.02 N: 25 Mn: 1.02 Si: 0.70 Cu: 0.42 P: 0.030 S: 0.02	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	Duplex 2607 is a super duplex stainless steel designed for applications which demand exceptional strength and corrosion resistance. Alloy 2507 has 25% chromium, 4% molybdenum, and 7% nickel. This high molybdenum, chromium and nitrogen content results in excellent resistance to chloride pitting and crevice corrosion attack and the duplex structure provides 2507 with exceptional resistance to chloride stress corrosion cracking.



CHROME MOLY

BRAND	COMPOSITION	SIZE (MM)	AVAILABLE FORMS	CHARACTERISTICS / APPLICATIONS
ER 80SB2	C: 0.10 Si: 0.6 Mn: 0.5 Mo: 0.5 Cr: 1.2 S: 0.024 Cu: 0.34 Ni: 0.19 P: 0.024	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA 80SB2 is designed for GMAW, FCAW or SAW of 1-1/4 Cr/ 1/2 Mo Steels. These are used for high temperature service. Preheating and interpass temperatures of not less than 300F must be maintained during the welding process
ER 80SD2	C: 0.10 Si: 0.65 Mo: 0.5 Mn: 1.8 S: 0.024 P: 0.024 Ni: 0.14 Cu: 0.49	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	ALFA 80SD2 is suitable for welding pipes & tubes of 1/2 Moly - 1.15 Cr steels. It is deposited with much free welds with excellent mechanical properties as well as high creep resistance and toughness.
ER 90SB3	C: 0.08 Si: 0.6 Mn: 0.5 Mo: 1.0 Cr: 2.4 S: 0.024 Cu: 0.34 P: 0.024 Ni: 0.19 Others: 0.49	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA 90SB3 is designed for welding of 2-1/4 Cr/1 Mo Steels, which are used for high temperature applications. A preheat and interpass temperature of not less than 350 Degree should be maintained during welding.
ER 90SD2	C: 0.05 Si: 0.45 Mn: 1.75 P: 0.015 S: 0.020 Mo: 0.51	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	ER 90SD2 is a double deoxidised Copper Coated MIG Welding Wire for general engineering and structural applications. It is ideally suited for continuous welding of unalloyed and structural steels. Finds extensive use in the automobile and container industry. Also used for welding bicycle frames. Railways bogies earth moving equipments etc
ER 80SB6	C: 0.07 Si: 0.45 Mn: 0.5 Mo: 0.6 Cr: 6.0 S: 0.024 Cu: 0.34 P: 0.024 Ni: 0.59 Others: 0.49	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA 80SB6 or ER 502 is low alloyed filler rod designed to weld materials of similar chemical composition for high temperature service applications. This is an air hardening material and calls for preheat and interpass temperatures of 350 Fahrenheit minimum during the process of welding.
ER 80SB8	C: 0.09 Mn: 0.40-0.70 Si: 0.49 P: 0.024 Cr: 8.0-10.50 Ni: 0.49 Mo: 0.85-1.20 Cu: 0.33 S: 0.024	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ALFA 80SB8 or ER 505 is 9Cr-1Mo alloy designed for welding materials of similar composition. This alloy calls for preheat and interpass temperatures of not less than 350 fahrenheit.
ER 90SB9	C: 0.07-0.13 Si: 0.15-0.50 S: 0.009 Cr: 8.00-10.50 V: 0.15-0.30 Cu: 0.19 Nb: 0.02-0.10 Mn: 1.19 P: 0.009 Ni: 0.79 Mo: 0.85-1.20 Al: 0.03 N: 0.03-0.07 Others: 0.49	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	This rod is used for high temperature, creep resistant martensitic 9-12% chromium steels in turbine and boiler fabrication and in the chemical industry. This is specially designed for ASTM Steels T91/P91.

NICKEL & COPPER ALLOYS

BRAND	COMPOSITION	SIZE (MM)	AVAILABLE FORMS	CHARACTERISTICS / APPLICATIONS
ER Ni-1	C: 0.06 Mn: 0.30 Si: 0.40 Fe: 0.10 S: 0.003 P: 0.008 Cu: 0.02 Al: 00.5 Ti: 3.0 Ni: 95.5	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ER Ni-1 is used for welding of Nickel 200 or 201. This filler metal is also employed for overlaying on steel as well as repairing cast iron castings. It can also be used for dissimilar joints between nickel alloys to stainless or ferritic steels.
ER NiCr3	C: 0.03 Mn: 2.85 Si: 0.22 Fe: 1.1 Cr: 20.4 Cb + Ta: 2.5 Ni: 72.9 S: 0.001 P: 0.003	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	ER NiCr3 is good for welding austenitic ferritic joints. No Cr Carbide zone that becomes brittle in the ferrite weld deposit transition zone, even as a result of heat treatments above 300 Degrees
ER NiCrMo3	C: 0.009 Mn: 0.05 Si: 0.12 Cr: 21.9 Mo: 8.65 Cb + Ta: 3.7 Ti: 0.19 Al: 0.17 S: 0.002 P: 0.006 Ni: 58.0	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	Ni-based CrMoNb wire for welding of Ni-alloys of the same or similar type as e.g. Inconel 625, for welding of 5% and 9% Ni steel. The wire is very suitable for welding of 254 SMO
ER NiCrMo4	C 0.001 Mn 0.55 Si 0.04 Cr 15.55 Mo 16.1 W 3.65 S 0.002 P 0.009 V 0.15 Ni balance Fe 5.5	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	NiCrMo-4 is a corrosion and heat resistant, nickel-chromium wire welding of high alloyed steel, heat resistant steel, corrosion resistant steel, 9Ni steels and similar steels with high notch toughness at low temperatures. Good resistance to stress corrosion.
ER NiCu7	C 0.05 Mn 3.45 Si 0.77 Fe 0.4 Al 0.1 Ti 2.25 Ni 65.2 S 0.002 P 0.009 Cu balance	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	A nickel-copper electrode for welding NiCu alloys to themselves and to steels and for corrosion-resistant surfacing. The weld metal of ERNiCu-7 is crack resistant and ductile and meets rigorous requirements relating to corrosion resistance in sea water and in reducing and oxidising acids.
ER NiCrMo13	Mn: 0.2 Mo: 16.0 C: 0.01 Si: 0.1 Ni: Balance Al: 0.3 Cr: 23 Fe: 1	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	NiCrMo-13 is a Nb-free, Ni-Cr-Mo wire for welding high-alloyed steels of the 20Cr25Ni4-6Mo type and nickel-based alloys of similar type. The wire can also be used for welding these steels with dissimilar steels. The weld metal has very good corrosion resistance in both oxidizing and reducing media.
ER NiCrCoMo1	C: 0.06 Mn: 0.10 Fe: 0.60 P: 0.005 S: 0.001 Si: 0.11 Cu: 0.01 Ni: Bal Al: 1.0 Cr: 21.5	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	NiCrCoMo1 is a nickel-chrome-cobalt-molybdenum alloy of type alloy 617. It has an excellent resistance to high temperature corrosion such as oxidation and carburization. The weld metal provides a combination of excellent metallurgical stability and strength in short and long term exposure to temperatures up to 1100°C

BRAND	COMPOSITION	SIZE	EQUIVALENT FORMS	CHARACTERISTICS / APPLICATIONS
ER NiFeCr1	C: 0.01 Si: 0.25 Mn: 0.45 P: 0.015 S: 0.001 Cr: 21.5 Ni: 42.6 Mo: 3.1 Fe: 29.0 Cu: 2.0	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig Flux Cored SAW	NiFeCr-1 is developed for overlay welding of low alloy steel pipes in the oil and gas industry. ALFA NiFeCr-1 can also be used to join B25 and materials of similar chemical composition using GTAW and GMAW.
ER CuNi 70/30	Mn: 0.9 Ti: 0.4 Fe: 0.5 Ni: 30.0 S: max. 0.01 Cu: Balance Pb: 0.02 Others: 0.49 Si: 0.24 P: 0.02	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	The addition of nickel in Cupro Nickel strengthens the weld metal and improves corrosion resistance, particularly to salt water. The alloy is used for the overlay welding of steels and is widely used for welding Cu-Ni components for desalination plants.
ER CuNi 90/10	Cu: balance Mn: 0.9 P: 0.01 Si: 0.24 Fe: 0.40 - 0.75 Ni: 10 - 12 Ti: 0.20 - 0.50 Pb: 0.01 Others: 0.49	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	The addition of nickel in Cupro Nickel strengthens the weld metal and improves corrosion resistance, particularly to salt water. The alloy is used for the overlay welding of steels and is widely used for welding Cu-Ni components for desalination plants.
ER CuSn	Sn: 6.0 P: 0.20 Fe: <0.10 Cu: Balance Pb: <0.02	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig	ER CuSn is a filler metal used as a copper-tin alloy containing about 5% tin. It is used to weld bronze, brass and copper. Phosphorus Bronze is frequently used to repair castings and join copper-tin alloys of similar chemical composition.
ER CuAlA1	Al: 6.0 - 8.5 Fe: 0.5-1.5 Mn: 0.49 Ni: <1.0 Cu: Balance Others: 0.49 Zn: 0.19 Si: 0.09 Pb: 0.01	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig	Aluminum Bronze wire deposits are used primarily to overlay bearing and wear-resistant surfaces requiring a hardness of approximately 125 BHN and to resist corrosion especially from salt water, metal salts and many commonly used acids in varying concentrations and temperatures.
ER CuAlA2	Al: 9.0 Si: <0.10 Fe: <1.50 Cu: Balance Others: 0.4 Zn: 0.1 Si: 0.09 Pb: 0.01	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig	ERCuAL-A2 Aluminum Bronze is an iron-bearing MIG and TIG filler metal used for joining aluminum bronze of similar composition, silicon and manganese bronze, high strength copper-zinc alloys, some copper-nickel alloys, ferrous metals and dissimilar metals. Dissimilar metal combinations would include aluminum bronze to steel and copper to steel.
ER CuAlA3	Al: 10.0 - 11.5 Fe: 2.00 - 4.50 Si: 0.09 Cu + Ag: Balance Others: 0.49	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig	ALFA ERCuAL-A3 Aluminum Bronze contains a higher Iron (Fe) content than Aluminum Bronze A-2. The higher Iron content gives "A-3" greater strength when joining aluminum bronze castings of similar composition. "A-3" is often used for piston overlay and bearing surface applications which require higher strength, while maintaining good ductility.

BRAND	COMPOSITION	SIZE	EQUIVALENT FORMS	CHARACTERISTICS / APPLICATIONS
ER CuNiAl	Cu: Balance Al: 8.5 - 11.0 Fe: 3.0 - 5.0 Ni: 4.0 - 8.0 Mn: 0.80 - 3.50 Si: 9 Others: 0.49 *Includes silver	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig	CuNiAl welding wire is often used for rebuilding ship propellers of sea going ships because of its excellent cavitation resistance against the salty seawater and its high strength properties. is often used for rebuilding ship propellers of sea going.
ER Cu	Cu: Balance Mn: 0.08 - 0.5 P: 0.02 - 0.15 Si: 0.4 Sn: 0.9 Others: 0.49 Pb: 0.01	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	This weld material is used to fabricate deoxidized copper and repair weld copper castings. Both the gas metal arc and gas tungsten arc weld processes can be used. Can also be used to weld galvanized steel and deoxidized copper to weld steel where high strength joints are not required.
ER CuSi	Si: 3.0 Mn: 1.0 Fe: 0.48 Sn: 0.10 Cu: Balance Al: 0.01 Zn: 0.09 Pb: 0.01	Tig: 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 5.0 Mig: 0.8, 1.0, 1.2, 1.6	Solid Tig & Mig SAW	ER CuSi is used for welding of Silicon Bronze Copper, or Aluminum Bronze of low aluminum content. It can also be used for brazing malleable iron and light gauge steel.



TITANIUM

BRAND	COMPOSITION	CHARACTERISTICS / APPLICATIONS
GRADE 1	C: 0.02 O: 0.09 N: 0.010 H: 0.004 Fe: 0.08 Ti: Balance	ERTi-1. Grade 1 is the lowest strength unalloyed (or Commercially Pure—CP) grade. Grade 1 is used in applications where ductility is paramount, such as explosive cladding, loose linings, expanded metal, and deep drawing applications. It is also used in electrolytic applications like coated anode substrates for production of chlorine and sodium chlorate.
GRADE 2	C: 0.02 Fe: 0.10 O: 0.10 H: 0.007 N: 0.014 Ti: Balance	ER Ti2 is a welding pure Titanium and Titanium alloys with similar chemical composition. Titanium can be tungsten arc welded employing techniques similar to those used for welding of stainless steel. However, Titanium requires a greater cleanliness and the use of auxiliary gas shielding to protect the molten puddle and cooling weld zone from atmospheric contamination.
GRADE 5	C: 0.04 O: 0.15 N: 0.02 H: 0.014 Fe: 0.20 Al: 6.0 V: 3.9 Ti: Balance	Excellent weldability, and can be heat treated to a higher strength or toughness. Grade 5 is used in aircraft components such as landing gear, wing spars, and compressor blades. Its corrosion resistance is generally comparable to Grade 2 and it is often used in corrosion service where higher strength is required, particularly in shafts, high strength bolting, and keys.
GRADE 12	C: 0.02 O: 0.10 N: 0.014 H: 0.006 Fe: 0.14 Mo: 0.3 Ni: 0.78 Ti: Balance	Grade 12 is an intermediate strength grade originally developed to provide enhanced crevice-corrosion resistance in high temperature brines, but at lower cost than Grade 7. The improved performance is believed to be the result of Ni ⁺⁺ and Mo ⁺⁺ ions that alter the surface electrochemistry of the material in the crevice or under a surface deposit.

STELLITE

Cobalt based alloys are well known for their proven wear properties when heat, corrosion and abrasion combined causing wear problems. Stellite alloys retain their properties at high temperatures where they also have excellent oxidation resistance. They are typically used in the temperature range 315 – 600° C (600 – 1112° F). They can be finished to exceptional levels of surface finish with a low coefficient of friction to give good sliding wear. Our range of Cobalt based hard facing alloys are available in several grades with high and low carbon content alloyed with mostly Chromium and Tungsten in different variations.

BRAND	COMPOSITION	HARDNESS H.R.C	MELTING RANGE °C	CHARACTERISTICS / APPLICATIONS
STELLITE 1	C: 2.5 CR: 32 W: 13 CO: Balance	55	1250 - 1290	Very high resistance to abrasion and corrosion. Retains hardness at temperatures in excess of 600 °C. Used for pump sleeves, rotary seal rings, wear pads, bearing sleeves, extruder screw flights. Also available as rod, wire and electrode.
STELLITE 6	C: 1 CR: 27 W: 5 CO: Balance	42	1280 - 1390	Tough erosion-resistant alloy widely used for good all round performance. Less tendency to crack than Stellite™ 12 in multiple layer, but far more wear resistant than Stellite™ 21 in abrasion and metal to metal conditions. Good impact conditions. Good impact resistance. Valve seats and gates, pump shafts and bearings, erosion shields and rolling couples. Often used self-mated. Can be turned with carbide tooling. Also available as rod, electrode and wire.
STELLITE 12	C: 1.8 CR: 30 W: 9 CO: Balance	48	1280 - 1315	Properties between those of Stellite™ 1 and Stellite™ 6. More abrasion resistance than Stellite™ 6 but still good impact resistance. Widely used as cutting edge in textile, timber and plastics industries and for bearings. Also available as rod, electrode and wire.
STELLITE 21	C: 0.2 CR: 27 Mo: 5 CO: Balance	32	1180 - 1380	Excellent resistance to thermal and mechanical shock. Excellent high temperature strength. Applications involving erosion, high temperatures and corrosion. Valve trim for high pressure steam, oil and petrochemical. Also available as rod, electrode and wire.

FLUX CORED

Mild Steel

BRAND	COMPOSITION	SIZE (MM)	AVAILABLE FORMS	CHARACTERISTICS / APPLICATIONS
E71T1	C: 0.04 Mn: 1.32 Si: 0.42 P: 0.020 S: 0.010 Cr: 0.19 Ni: 0.49 Mo: 0.29 V: 0.07 Cu: 0.34	Mig: 1.2, 1.6		E71T1 is an all position welding wire used in Building, Shipbuilding, bridges, machinery and vehicles. It is a titania type flux cored wire for all position welding with CO ₂ . Compared with solid wire, spatter loss is low, bead appearance is beautiful and arc is soft with good stability.
E71T5	C: 0.05 Mn: 1.24 Si: 0.50 P: 0.011 S: 0.012 Mo: 0.4 - 0.65	Mig: 1.2, 1.6		E71T5 is suitable for welding of mild and 490MPa high tensile strength steels for shipbuilding, machinery structures, bridge construction and heavy plant facilities. It is a basic flux cored wire with excellent characteristics and is suitable for steel with a tensile strength up to 600MPa. Deposited metal shows superior crack resistance, excellent at low temperature at -20~-30°C(-4~-22°F).

Duplex & Super Duplex

BRAND	COMPOSITION	SIZE (MM)	EQUIVALENT FORMS	CHARACTERISTICS / APPLICATIONS
E2209LT-1	C: 0.030 Mn: 1.10 Si: 0.70 P: 0.020 S: 0.006 Cr: 22.40 Ni: 8.60 Mo: 2.90 N: 0.15	Mig: 1.2, 1.6	Solid Tig & Mig SAW	ALFA 2209LT1 is a titania type flux cored wire for all position Welding with CO ₂ & Ar+CO ₂ mixed shielding gas. This wire is designed for Duplex stainless steels. Arc stability is excellent, so spatter loss is low and slag covering is Uniform with good removability.
E2594LT-1	P: 0.02 Mn: 0.95 Mo: 3.59 Cu: 0.14 C: 0.03 S: 0.01 Si: 0.62 W: 0.02 Ni: 9.68 Cr: 25.34 N: 0.23	Mig: 1.2, 1.6	Solid Tig & Mig SAW	ALFA 2594 Flux Cored is designed for the welding of 25Cr-9Ni-3Mo-0.2N super duplex stainless steel (UNS S32750, S32760). It has excellent slag removal and bead shape with all position welding for use with Ar/CO ₂ gas mixtures.

Chrome Moly

BRAND	COMPOSITION	SIZE (MM)	EQUIVALENT FORMS	CHARACTERISTICS / APPLICATIONS
E81T1-B2	C: 0.066 Si: 0.41 Mn: 0.80 P: 0.016 Cr: 1.19 S: 0.017 Mo: 0.51	Mig: 1.2, 1.6	Solid Tig & Mig SAW	ALFA 81LT1 can be used for welding of 1.25%Cr-0.5%Mo heat resistant steels used for steam pipes of boilers for electric power plants and marine use, equipment for oil refining industries and high temperature synthetic chemical industries. Most common usage is in steam power plants and ships, chemical plants and refineries.
E91T1-B3	C: 0.09 Mn: 1.2 Si: 0.70 P: 0.03 S: 0.02 V: 2.25 Mo: 1.10	Mig: 1.2, 1.6	Solid Tig & Mig	ALFA 91T1 can be used for welding of 2.25%Cr-1.0%Mo steel used for super heat tubes and steam pipes of boilers for electric power plant and marine use, equipment for oil refining industries and high temperature synthetic chemical industries.

Stainless Steel

BRAND	COMPOSITION	SIZE (MM)	AVAILABLE FORMS	CHARACTERISTICS / APPLICATIONS
E308LT-1	C: 0.029 Mn: 1.35 Si: 0.50 P: 0.022 S: 0.012 Cr: 18.0 - 20.0 Ni: 9.0 - 11.0 Mo: 0.74 Cu: 0.74	Mig: 1.2, 1.6	Solid Tig & Mig SAW	ALFA 308L Cored is designed for welding of 18%Cr-8%Ni stainless steels. It is a flux-cored wire for all position welding to be used with CO ₂ or Argon + CO ₂ mixed shielding gases. This wire benefits from a fast freezing slag system, which assists the operator when welding out of position, and performs equally as well when welding in the flat and horizontal position.
E309LT-1	C: 0.027 Mn: 1.51 Si: 0.49 P: 0.024 S: 0.003 Cu: 0.74 Cr: 22.0 - 25.0 Ni: 12.0 - 14.0 Mo: 0.74	Mig: 1.2, 1.6	Solid Tig & Mig SAW	ALFA 309L Cored wire is designed for the welding of dissimilar metals such as stainless steels and carbon steels or stainless steels and low alloy steels. This wire contains a high ferrite level in its austenitic structure thus providing better weldability together superior heat and corrosion resistance. As larger amounts of alloying elements are added, it becomes suitable for the welding of dissimilar joints where dilution from ferrite steel takes place.
E309LMOT-1	C: 0.04 Mn: 1.72 Si: 0.57 P: 0.029 S: 0.005 Cr: 22 Ni: 13 Mo: 2.5 Cu: 0.75	Mig: 1.2, 1.6	Solid Tig & Mig SAW	ALFA 309LMO Cored wire contains a high ferrite level in its austenitic structure thus providing superior heat and corrosion resistance. SM-309MoL is suitable for the build up on low alloy or mild steel and welding of STS 316, 316L clad steel.
E316LT-1	C: 0.027 Mn: 1.40 Si: 0.40 P: 0.026 S: 0.003 Cr: 17.0 - 20.0 Ni: 11.0 - 14.0	Mig: 1.2, 1.6	Solid Tig & Mig SAW	SS316LT-1 is designed for the welding of low carbon 18%Cr-12%Ni-2%Mo stainless steels or for the welding of dissimilar joints of stainless steels. ALFA 316LT1 is a flux-cored wire for all position welding to be used with CO ₂ or Argon + CO ₂ mixed shielding gases. Due to ferrite contents in the weld metals austenitic structure, it has excellent crack resistance.
E347LT-1	C: 0.03 Mn: 1.86 Si: 0.58 P: 0.026 S: 0.005 Cr: 18.0 - 21.0 Mo: 0.74 Ni: 9.0 - 11.0	Mig: 1.2, 1.6	Solid Tig & Mig SAW	E347LT-1 weld metal contains ferrite, its resistance to crack is good. Bead appearance and weldability are good. ALFA 347LT1 has stabilizing element (Nb) thus providing good intergranular corrosion resistance and better heat resistance. Due to high creep strength at high temperature, suitable for the welding of boiler and gas turbine.
E317LT-1	C: 0.030 Mn: 1.34 Si: 0.65 P: 0.020 S: 0.005 Ni: 12.68 Cr: 18.26 Mo: 3.00 - 4.00	Mig: 1.2	Solid Tig & Mig SAW	E317LT1 is recommended for welding Type 317 and 317L stainless steel. It can also be used for Type 316L where additional weld metal corrosion resistance, including pitting resistance, is required. This is used in industries where there is severe corrosion applications involving sulfuric and sulfurous acids and their salts.
E310LT-1	C: 0.10 Mn: 1.5 Si: 0.8 Cr: 27 Ni: 21.5 Mo: 0.75 P: 0.02 S: 0.03 Cu: 0.75	Mig: 1.2, 1.6	Solid Tig & Mig SAW	310T-1 is a flux-cored wire used mainly for welding AISI 310 stainless steel but also for straight chromium stainless as well as many grades of carbon and alloy steel. The weld deposit of this flux-cored electrode will have an austenitic structure with a chemical analysis and oxidation resistance similar to that of the base plate.

BRAZING

Brazing refers to a group of joining processes that produce coalescence of material by heating them to brazing temperature in the presence of brazing filler metal that has a liquidus temperature above 840° F and below the solidus temperature of the base metals. The brazing filler metal is distributed between closely fitted faying surfaces of the joint by capillary action.

We are a single source supplier for all your brazing needs including brazing alloys and their fluxes. Based on extensive research and product innovation, our comprehensive range of products include:-

- Silver Brazing Alloys
- Silver Copper Phosphorus Brazing Alloys
- Copper Based Brazing Alloys
- Fluxes

We offer a range of various variety in Silver Brazing alloy With Cadmium which have an excellent combination of Melting Range, Capillary Flow and Mechanical Properties

PRODUCT CODE	Ag	Cu	Zn	Cd	CELCIUS	AWS A5.8
ALFA 205	50	15	16	19	620 - 640	B Ag - 1A
ALFA 209	45	15	16	24	607 - 619	B Ag - 1
ALFA 207	43	16	20	21	615 - 620	-
ALFA 206	42	17	16	25	605 - 620	-
ALFA 204	40	19	21	20	595 - 630	-
ALFA 208	35	26	21	18	607 - 702	B Ag - 2
ALFA 203	30	27	20	23	607 - 710	B Ag - 2A
ALFA 207A	25	30	27.5	17.5	605 - 710	B Ag - 33
ALFA 207B	25	35	26.5	13.5	605 - 746	B Ag - 27
ALFA 202	20	38	28	14	620 - 750	-
ALFA 203A	12	50	31	7	620 - 810	-

We have also developed a range of Cadmium Free Alloy, keeping in view the requirements of our clients, which consist of the food and beverage industry.

PRODUCT CODE	Ag	Cu	Zn	CELCIUS	AWS A5.8
ALFA 309B	72	28	-	780 - 790	B Ag - 8
ALFA 306	60	26	14	695 - 730	-
ALFA 305	50	34	16	688 - 774	B Ag - 6
ALFA 305A	50	50	-	750 - 870	-
ALFA 309	45	30	25	677 - 743	B Ag - 5
ALFA 307	43	37	20	700 - 775	-
ALFA 304	40	30	30	660 - 720	-
ALFA 308	35	32	33	685 - 755	B Ag - 35
ALFA 303	30	38	32	680 - 765	B Ag - 20
ALFA 307C	25	40	35	700 - 790	-
ALFA 301	10	52	38	743 - 766	-

Silver Copper Phosphorus Brazing Alloy

We offer a wide range of Copper Phosphorus Alloy, which can be used in refrigeration, air conditioning and plumbing industry. These alloys are used extensively to join copper and copper alloy base metals. They have self fluxing properties when used on copper.

PRODUCT CODE	Ag	Cu	P	CELCIUS	AWS A5.8
ALFA 101A	-	95	5	710 - 924	B Cup - 1
ALFA 101	-	93	7	705 - 800	B Cup - 2
ALFA 101B	0.5	93	6.5	650 - 810	-
ALFA 102	2	91.5	6.5	645 - 740	B Cup - 6
ALFA 105	5	89	6	643 - 807	B Cup - 3
ALFA 105A	5	88	7	643 - 771	B Cup - 7
ALFA 106A	6	87	7	650 - 740	B Cup - 4
ALFA 115	15	80	5	643 - 802	B Cup - 5

Brass Brazing Alloy

These brazing alloy include general purpose brasses, brasses with addition of nickel, high temperature copper alloys & Copper for Furnace brazing. All these alloys are economical to use and can be generally supplied in variety of forms like rods, wires, performs, stripes, powder and pastes.

PRODUCT CODE	Cu	Zn	Ni	Si	CELCIUS	AWS A5.8
ALFA 501	60	39.7	-	0.3	875 - 895	-
ALFA 502	60	39.6	-	0.2	875 - 895	-
ALFA 510	50	39.7	10	0.3	890 - 920	RBCuZn - D
ALFA 510A	50	39.7	9	0.3	860 - 890	-
ALFA 506	96	-	-	-	-	-
ALFA 5PC	100	-	-	-	1083	B - Cu1

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 as follows:

- Diameter and length of the bare rod to be coated
- Outer diameter of the Flux Coated Rod

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

- There is no need to use a separate flux
- Flux coated brazing alloy can be used directly on the job without separate application of flux making the operation quick and economical
- Compatibility of flux with the brazing alloy as supplied by the same manufacturer
- There is uniform flow of flux along with the brazing alloy during the brazing operation
- 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 have launched ALFA range of Flux coated brazing rods. Our range includes the following:

- Flux Coated Silver Brazing Alloys.
- 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:

- IS2927-1975
- BS:1845
- AWS A5.8
- DIN 8513
- EN1044

Characteristics

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

Delivery Forms

STANDARD SIZES				
Diameter x Length (mm)	1.6 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

TUNGSTEN

Tungsten electrodes are used when arc welding with the Tungsten Inert gas (TIG) process or when plasma welding. In both processes the electrode, arc and weld pool are protected from atmospheric contamination by an inert gas. A tungsten electrode is used because it can withstand very high temperatures with minimal melting or erosion. Electrodes are made by powder metallurgy and are formed to size after sintering.

TIG welding electrodes usually contain small quantities of other metallic oxides which can offer the following benefits:

- Facilitate arc starting
- Increase arc stability
- Improve current-carrying capacity of the rod
- Reduce the risk of weld contamination
- Increase electrode life

Oxides used are primarily those of zirconium, thorium, lanthanum, yttrium or cerium. Additions are usually of order 1%-4%. All these oxides greatly improve arc initiation, especially when direct current (DC) welding is employed.

Below is a table describing the differences in TIG electrode types, and you can find the full product line with us:

TYPE	COLOUR	USAGE
THORIATED	RED	The red Thoriated type is the most used electrode for a reason. Extremely long lasting and highly durable, these electrodes are a staple in DC welding applications. These red electrodes are best for copper alloys, nickel alloys, titanium alloys, and non-corroding steels
ZIRCONATED	WHITE	White Zirconiated tungsten electrodes handle higher amperage levels and work well with both transformer and inverter power sources, making them an excellent alternative to the green pure tungsten electrodes for magnesium and Aluminium alloys
CERIATED	GREY	Grey Ceriated electrodes are popular due to their extreme ease of striking an arc with lower amperages, and their extraordinary performance with regard to DC welding applications. They perform best with titanium alloys, copper alloys, magnesium alloys, Aluminium alloys, nickel alloys and low-alloyed steels
1.5% LANTHINATED	GOLD	The gold lanthanated tungsten electrodes contain less lanthanum than their blue counterparts and are best used in DC applications. They are best for welds with titanium alloys, copper and nickel alloys
2% LANTHINATED	BLUE	The blue lanthanated electrodes are popular due to the relative ease of striking an arc and lower amperage required. They perform exceptionally well in both AC & DC applications and are a popular general use electrode. Blue electrodes are effective for welding Aluminium alloys, magnesium alloys, nickel and copper alloys
PURE TUNGSTEN	GREEN	The original green pure tungsten electrode contains at least 99.5% tungsten and delivers all of the properties classically associated with tungsten – superior conductivity, durability, and performance. Green electrodes are perfect for weld projects containing magnesium or Aluminium alloys

- Sizes Available: 1.0 mm to 16 mm
- Length: 150 mm
- Material is accompanied with a Test Certificate

PRODUCT LAUNCH

ALFA[®] E71T1 FLUX CORED WIRES

- Perfect welding features in all positions
- Great slag detachability that allows high speed weld
- Excellent weld-ability with low spatters
- Optimized for 100% Co2 gas shielding
- Now with aluminium foil vacuum packing



WE ARE PLEASED TO ANNOUNCE THE LAUNCH OF
OUR NEW PRODUCT ALFA FC71T1.

The launch of ALFA FC71T1 offers you and your customers Imported Quality at Indian Prices. This product expands the product basket that you can offer your customers, with assured quality, quick availability and good after sales service.

Please get in touch with our sales team for further details.



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