



ADVANCE METAL POWDER
Your Zero Inventory Partner

ADVANCE  PRO
NICKEL ALLOY WIRES



EXCEPTIONAL HIGH-TEMPERATURE PERFORMANCE,
SUPERIOR DURABILITY AND CORROSION RESISTANCE



TIG | MIG | SAW

ADVANCE **PRO** Nickel Alloys can be fusion welded using gas shielded processes like TIG or MIG. Of the flux processes, MMA is frequently used but the SAW process is restricted to solid solution alloys and is less widely used.

Nickel and Nickel Alloys are chosen because of their:

- Corrosion resistance
- Heat resistance and high temperature properties
- Low temperature properties

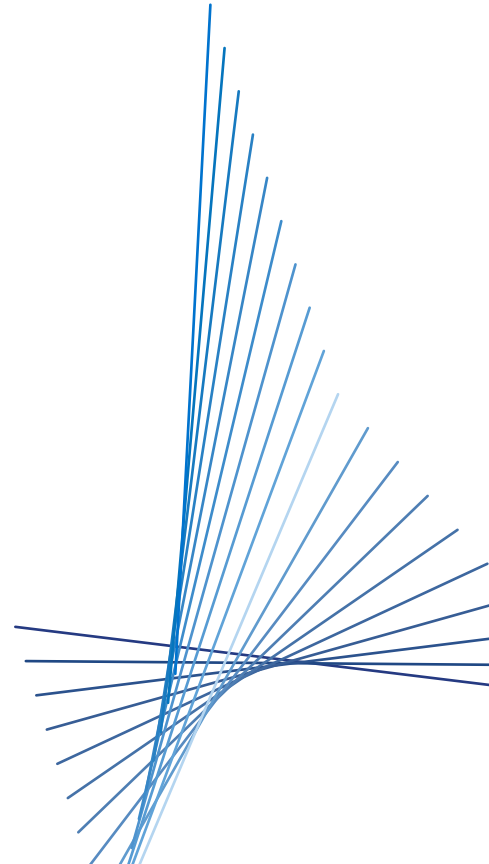
Types of nickel alloys are identified and guidance is given on welding processes and techniques which can be used in fabricating nickel alloy components without impairing their corrosion or mechanical properties or introducing flaws into the weld.

Common imperfections found on welding are:

- Porosity
- Oxide inclusions and lack of inter-run fusion
- Weld metal solidification cracking
- Microfissuring

Additionally, precautions should be taken against post-welding imperfections such as:

- Post-weld heat treatment cracking
- Stress corrosion cracking



Nickel Alloy Wires

MIG

Nickel Alloy **PRO** MIG wires deliver durable welds with superior corrosion resistance, ideal for tough environments. In MIG welding, attention must be paid to shielding efficiency of the weld pool including the use of a gas backing system.

Size (mm)	Size (inch)	Fraction
0.80	0.030"	- - -
0.90	0.035"	- - -
1.00	0.040"	- - -
1.20	0.045"	- - -
1.60	0.062"	1/16"



Plastic Spool SD300



12.5 kgs / 15 kgs / 20 kgs
25 lbs / 30 lbs

Plastic Spool SD200



5 kgs
10 lbs

Plastic Spool SD100



1 kgs
2 lbs

TIG

Our Nickel Alloy **PRO** TIG wires provide exceptional wear resistance and strength, ideal for high-impact welding tasks. In TIG welding, argon-hydrogen gas mixtures tend to produce cleaner welds.

Size (mm)	Size (inch)	Fraction
1.60	0.062"	1/16"
2.00	0.078"	- - -
2.40	0.094"	3/32"
3.20	0.125"	1/8"
4.00	0.156"	5/32"



Plastic Tubes

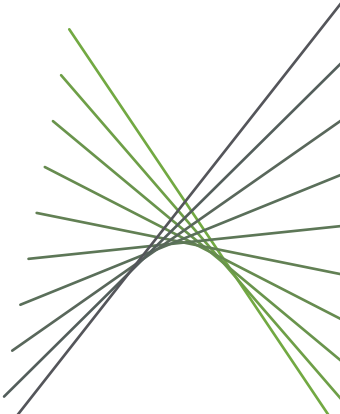


5 kgs

10 lbs

10 kgs

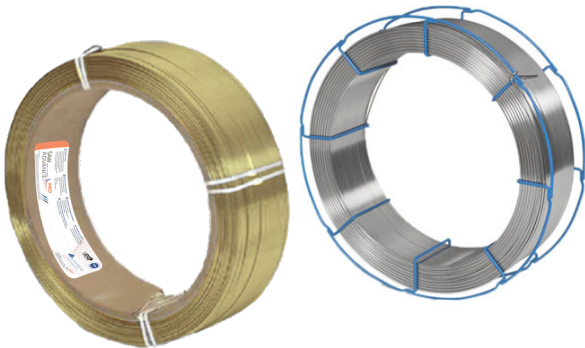
20 lbs





Nickel Alloy-enhanced **PRO** SAW wires offer robust performance and reliability, perfect for the most demanding industrial tasks.

Size (mm)	Size (inch)	Fraction
1.60	0.062"	1/16"
2.00	0.078"	- - -
2.40	0.094"	3/32"
3.20	0.125"	1/8"
4.00	0.156"	5/32"
5.00	0.187"	3/16"



Metal Ring Box Packing



25 kgs

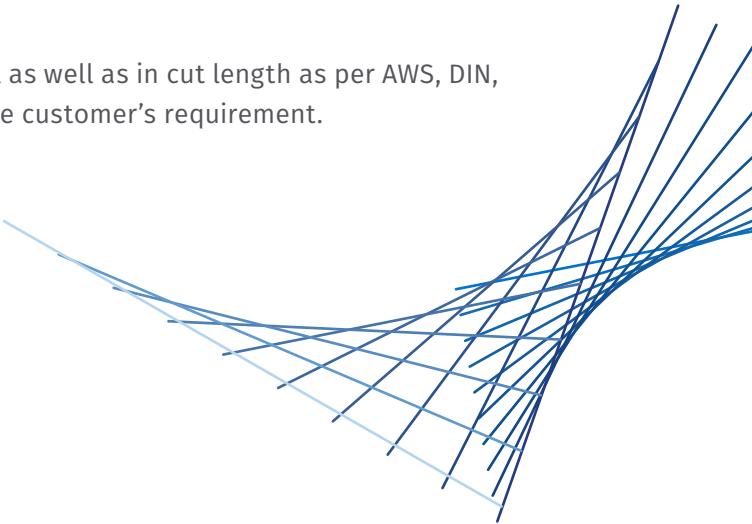
60 lbs



We manufacture high quality Nickel Alloy wires for welding electrodes in sizes 2.00 mm (0.078") - 5.00 mm (0.187") in bright as well as in matte finish.

The Nickel Alloy wires for welding electrodes are supplied in coil as well as in cut length as per AWS, DIN, BS, JIS and other equivalent international standards or as per the customer's requirement.

Size (mm)	Size (inch)	Fraction
2.00	0.078"	- - -
2.40	0.094"	3/32"
2.50	0.098"	- - -
3.15	0.124"	- - -
3.20	0.125"	1/8"
4.00	0.156"	5/32"
5.00	0.187"	3/16"

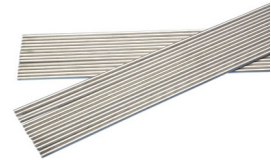


Coil Form



As per customer's request

Cut Length

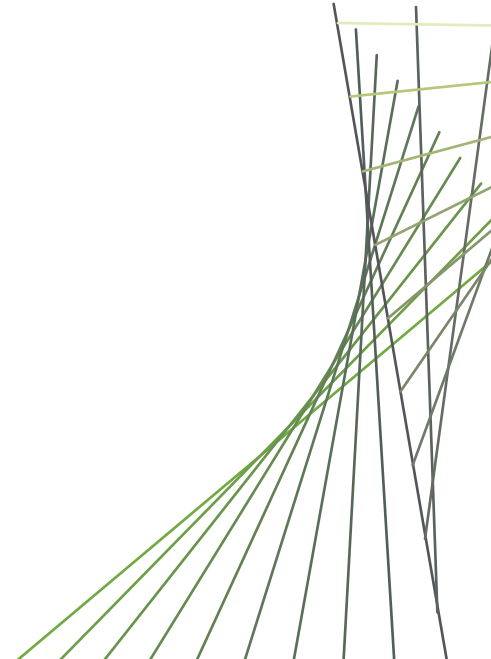


As per customer's request

Nickel Alloy Wires

Nickel - **TIG** **MIG** **SAW** **CORE** Wires for Electrodes

Grade	Designations
	AWS A5.14
Inconel 825	ERNIFECR1
Inconel 62	ERNICRFE5
Inconel 82	ERNICR3
Inconel 625	ERNICRMO3
Inconel 686	ERNICRMO14
Inconel 718	ERNIFECR2
Inconel 59	ERNICRMO13
Hastelloy C 276	ERNICRMO4
Hastelloy C 4	ERNICRMO7
Hastelloy 22	ERNICRMO10
Hastelloy 617	ERNICRCOM01
Nickel Ti	ER NI-1
Monel Ti	ERNICU7
Pure Nickel Wire	NICKEL WIRE
Ferro Nickel 60%	FE-NICKEL 60%
Ferro Nickel 55%	FE-NICKEL 55%
Ferro Nickel 36%	FE-NICKEL 36%
Alloy 20	ER320



C H E M I C A L C O M P O S I T I O N

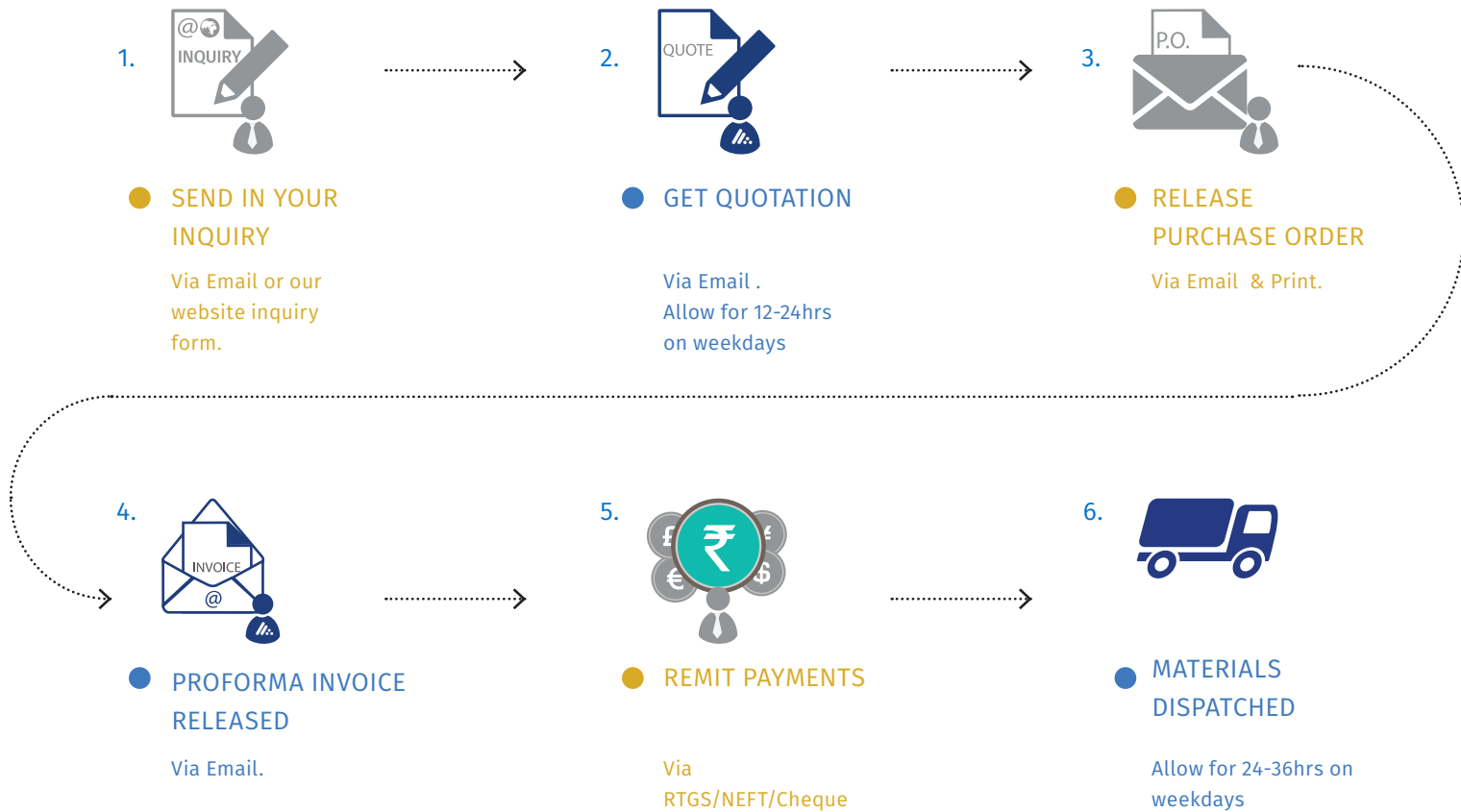
TIG Filler Wires for Nickel Based Alloys Welding

AWS	Composition, Wt %														
Classifications	C	Mn	Fe	P	S	Si	Cu	Ni	Al	Ti	Cr	Mo	Nb+Ta	W	Co
ER Ni1	0.15	1.0	1.0	0.03	0.015	0.75	0.25	93.0 min	1.5	2.0-3.5	-	-	-	-	-
ER NiCR3	0.10	2.5-3.5	3.0	0.03	0.015	0.50	0.50	67.0 min	-	0.75	18.0-22.0	-	2.0-3.0	-	-
ER NiCRCOMO1	0.05-0.15	1.0	3.0	0.03	0.015	1.0	0.50	Rem	0.8-1.5	0.60	20.0-24.0	8.0-10	-	-	-
ER NiCRMO10	0.015	0.50	2.0-6.0	0.02	0.01	0.08	0.50	Rem	-	-	20.0-22.5	12.5-14.5	-	2.5-3.5	-
ER NiCRMO7	0.015	1.0	3.0	0.04	0.03	0.08	0.50	Rem	-	0.70	14.0-18.0	14.0-18.0	-	0.50	2.0
ER NiCRMO3	0.10	0.5	5.0	0.02	0.015	0.50	0.50	58.0 min	0.40	0.40	20.0-23.0	8-10	3.15-5.50	-	-
ER NiCRMO4	0.02	1.0	4.0-7.0	0.04	0.03	0.08	0.50	Rem	-	-	14.5-16.5	15-17	-	-	-
ER NiCU7	0.15	4.0	2.5	0.02	0.015	1.25	Rem	62.0-69.0	1.25	1.5-3.0	-	-	-	-	-
ER NiCRMO14	0.01	1.0	5.0	0.02	0.02	0.08	0.5	Rem	0.5	0.25	19.0-23.0	15.0-17.0	-	-	-
ER NiFECR2	0.05	-	18.0	-	-	0.15	-	Bal.	0.5	1.0	18.5	3.0	5.0	-	-
ER NiCRMO13	<0.005	-	<0.5	-	-	0.05	-	Bal.	-	-	23	16	-	-	-
Fe.Ni (36%)	0.05	2.5	Bal	-	0.03	0.50	2.50	28.0-36.0	1.00	-	-	-	-	-	-
Fe.Ni (55%)	0.05	2.5	Bal	-	0.03	0.50	2.50	45.0-60.0	1.00	-	-	-	-	-	-
ER NiFECR1	0.05	1.0	22.0min	-	0.03	0.50	1.5-3.0	38.0-46.0	0.20	0.6-1.2	19.5-23.5	-	-	-	-
ER NiCRFE5	0.08	1.0	6.0-10.0	0.03	0.015	0.35	0.50	70.0 min	-	14.0-17.0	-	-	1.5-3.0	-	-
NICKEL WIRE	0.10	1.0	Bal.	0.03	0.03	0.50	-	99.0 min	-	-	-	-	-	-	-
Fe.Ni(60%)	0.10	1.0	Bal.	0.02	0.03	0.15	0.35	57 min	-	-	-	-	-	-	-
Fe.Ni(55%)Cu(4%)	0.10	1.0	Bal.	-	0.02	0.20	3.5-4.5	53.0 min	-	-	-	-	-	-	-

Exclusively European-sourced, these grades ensure unmatched quality, with flawless casting and helix precision—no sourcing from China.

- Single Values are Maximum
- Other elements total:0.50 max

H O W I T W O R K S





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