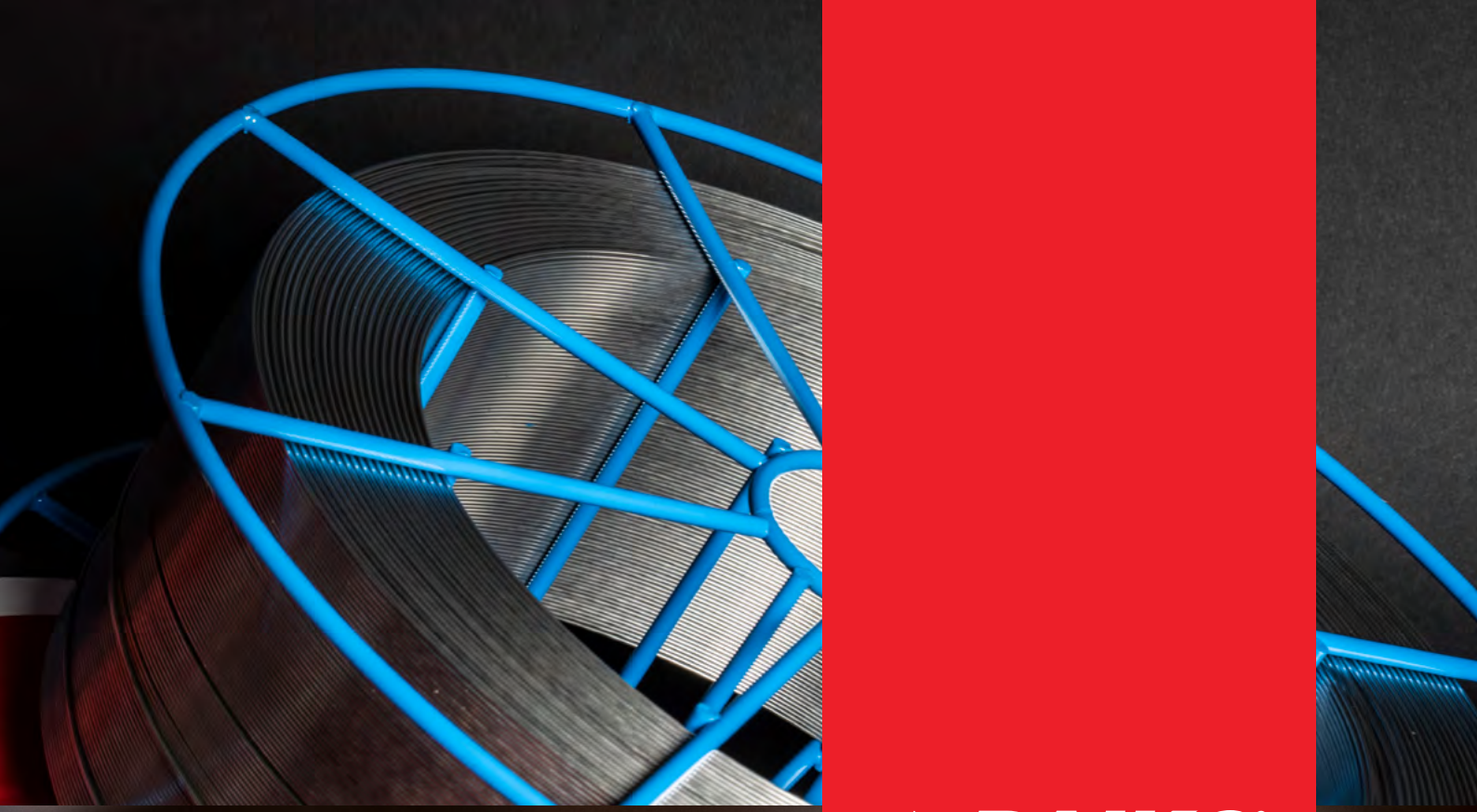


DAIKO®

Joining and Cladding Consumables

WELDING CONSUMABLES

A COMPLETE RANGE OF CONSUMABLES AND SERVICES FOR WELDING, HARDFACING AND CLADDING

The development of DAIKOW brand wide range of welding and cladding consumables (covered electrodes, solid and flux cored wires, strips and fluxes), reached through specific design together with strict and rigorous testing, is the result of our constant selection of special alloys and the synergy with the largest and most qualified world manufacturers.

In this large range of products, particular attention is paid to Corrosion Resistant Alloys and, especially, to Nickel Alloys where of our Top Product DAIKOW 625 is the absolute protagonist.

Another strength of the company is the large stock that ensures customers fast delivery of supplies.

We are today a reliable and punctual partner, qualified by major and prestigious customers worldwide in: oil & gas, chemical and petrochemical, pressure vessels, valves, and generally wherever reliable and high quality consumable products are required.

Discover the High Quality of the Daiko Welding Products!
scan the qrcode
and watch our factory video

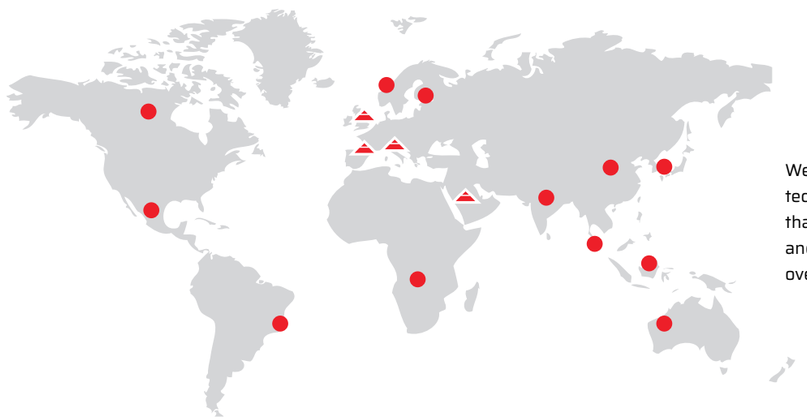
INDEX

WELDING CONSUMABLES

NICKEL ALLOY DAIKOW 625 OUR MOST RENOWNED WIRE

The great performances of DAIKOWM 625 wire,
gained over many decades of experience,
are renowned all over the world by the most demanding users:
- analysis compliant with AWS A5.14, ERNiCrMo-3
- strictly controlled chemical composition for every batch
- Fe content 0.5% max
- high quality and consistent weldability

"DAIKOWM 625 is the best GMAW welding wire for joining and cladding multiple industrial components, especially in applications with robotic welding systems."



We are an Italian testimony of passion for technical excellence and customer service that over the years has made itself known and appreciated thanks to its values all over the world.

DATA SHEET

PRODUCT:
DAIKOW 625

APPROVALS:
TÜV (Mig-Tig), CE

AVAILABLE IN:
Mig
Tig
Saw

SPECIFICATIONS:
AWS A5.14 ER NiCrMo-3
DIN 1736 SG-NiCr21 Mo9Nb (2.4831)
EN ISO 18274 Ni6625

SHIELDING GAS:
TIG: pure argon with back protection
MIG: pure argon or mixture Ar + He

APPLICATIONS:
DAIKOW 625 is designed to match the composition and properties of 625. This alloy is used for the high temperature strength and structural stability and is also used for its resistance to general corrosion, pitting, crevice and stress corrosion cracking in severe chloride media. Useful proprieties from -269°C to above 1000°C are achieved.

It is used for welding of alloy 625, alloy 825, alloy 25-6MO, and a range of high alloy austenitic and super austenitic stainless steels. It is also used for surfacing of steel, for welding 9% Ni steels, and for welding various corrosion-resistant alloys such as alloy 20.

Applications include furnace equipment, petrochemical and power generation plants and also overlays on pumps, valves and shafts in offshore and marine environments where high pitting resistance (PRE = 50) is essential. Widely used in oil & gas production and process.

TYPICAL COMPOSITION %:

C	Mn	Si	S	P	Cr	Ni	Mo	Nb+Ta	Cu	Al	Ti	Fe
0.02	0.02	0.10	0.005	0.005	22.0	65.0	9.0	3.50	0.05	0.20	0.20	<0.3

TYPICAL PROPERTIES "AS WELDED":
tensile strength = 760 N/mm2
0,2% proof stress = 520 N/mm2
elongation on 4D = 50%
impact energy at -40°C > 200J
-196°C > 80J
PRE > 50
hardness "as welded" = 250 HV

COMPLEMENTARY PRODUCTS:
Smaw Electrode: DAIKO 112
Flux Cored Wire: DAIKOFCW 625P
Strip: DAIKOSTRIP 625
SAW Flux: DAIKOFLUX 960-W
ESW Flux: DAIKOFLUX 940

SPECIFICATIONS:
AWS A5.11, ENiCrMo-3
AWS A5.34, ENiCrMo3T1-4
AWS A5.14, EQNiCrMo-3

PACKAGING:

MIG*	BS300	RANGE Ø 0,80 ÷ 1,60 mm	Kg 15
SAW*	K415	RANGE Ø 1,60 ÷ 4,00 mm	Kg 25
ROD*	CARTON BOX	RANGE Ø 1,00 ÷ 4,00 mm	Kg 5
TOURET	DIN760	RANGE Ø 1,00 ÷ 2,40 mm	Kg 150-250
DRUM		RANGE Ø 1,20 ÷ 1,60 mm	Kg 150-250

Other packaging available upon request.
*** all tradenames in the catalog are characterized by the suffixes "M" for GMAW, "T" for GTAW and "S" for SAW**

NICKEL ALLOYS

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION																MECHANICAL PROPERTIES			
						C	Mn	Fe	P	S	Mo	Si	Cu	Ni	Co	Al	Ti	Cr	Nb	V	W	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
625	Consumables matching the Ni base 625 alloy (Ni-21%Cr-9Mo-3,5%Nb), used for the high temperature strength and structural stability and is also used for its resistance to general corrosion, pitting, crevice and stress corrosion cracking in severe chloride media. Useful proprieties from -269°C to above 1000°C are achieved. They are used for welding of alloy 625, alloy 825, alloy 25-6MO, and a range of high alloy austenitic and super austenitic stainless steels. It is also used for surfacing of steel, for welding 9% Ni steels, and for welding various corrosion-resistant alloys such as alloy 20.	**DAIKOW 625**	MIG – TIG - SAW	A5.14 ERNiCr-Mo-3	EN ISO 18274 S Ni6625	0.01	0.01	<0,4	0.003	0.001	9.0	0,07	0,02	65	-	0,10	0,2	22.0	3.60	-	-	<0.50	760	500	>40	>80 (-196°C)
		DAIKO 112	SMAW	A5.11 ENiCrMo-3	EN ISO 14172 ENi6625	0.02	0.01	<0.5	0.01	0.006	9.3	0.40	<0.005	65	-	-	-	21.5	3.50	-	-	<0,50	770	520	40	>60 (-50°C)
		DAIKOFCW 625P	FCAW	A5.34 ENiCrMo3T1-4	EN ISO 12153 T Ni 6625 P M 21 2	0,03	0.30	2.00	0.002	0.002	9.0	0,3	0.030	62	-	-	0,15	22.5	3.70	-	-	<0.50	760	470	30	70 (-196°C)
		DAIKOSTRIP 625	STRIP	A5.14 EQNiCrMo-3	-	0.01	0.03	<0.5	0.003	0.001	9.0	<0,10	<0.030	65	-	0.10	0.20	22.0	3.70	-	-	<0.50	1360	1230	9	-
625-W	This consumable is close to DAIKOW 625 (ERNiCrMo-3) but Nb free. It ensures good resistance to hot cracking and a microstructure free of intermetallic phases (Niobium Nitride) and a very good toughness. DAIKO 625-W is used for welding of Nickel-Chromium-Molybdenum alloys of similar composition as well as for cladding on low alloyed steels. Also suitable to weld superduplex, superaustenitic and cryogenic 9%Ni steels.	**DAIKOW 625-W**	MIG – TIG - SAW	A5.14 ERNiCr-Mo-20	EN ISO 18274 Ni6660	0.01	0.04	0.50	0.003	0.001	10.0	0.05	0.050	64	-	0.10	0.10	22.0	0.01	-	3.2	<0.50	>740	>500	40	>110 (-50°C)
82	There is no equivalent base metal, but the composition is related to Inconel 600. Mn and Nb are added in order to give high resistance to hot cracking and tolerance to dilution by combination with ferrous alloys. This product has stable properties for service from -269°C to approx 900°C. Applications include welding heat-resistance alloy, dissimilar welds between nickel base alloys (including Monel) and stainless steels, low alloy and carbon steels. Also suitable to weld Cr-Mo steels with austenitic steels (e.g. 308H) for service at elevated temperature and for low temperature applications such as 3% and 5% Ni steels.	**DAIKOW 82**	MIG – TIG - SAW	A5.14 ERNiCr-3	EN ISO 18274 S Ni6082	0.03	3.10	1.30	0.004	0.001	-	0.10	0.02	72	-	-	0.40	20.5	2.40	-	-	<0.50	670	390	44	>100 (-196°C)
		DAIKO 182	SMAW	A5.11 ENiCrFe-3	EN ISO 14172 ENi6182	0.02	8.60	5.75	0.014	0.007	-	0.50	0.01	68	-	-	0.30	14.6	1.90	-	-	<0.50	660	400	42	>50 (-196°C)
		DAIKOFCW 82	FCAW	A5.34 ENiCr3T0-4	EN ISO 12153 T Ni 6182 R M21 3	0.05	3.20	2.20	0.003	0.004	-	0.30	<0.005	70	-	-	0.30	21.0	2.70	-	-	<0.50	600	340	45	90 (-196°C)
		DAIKOSTRIP 82	STRIP	A5.14 EQNiCr-3	-	0.04	3.20	0.50	0.002	0.002	-	0.05	0.03	73	-	-	0.25	20.4	2.60	-	-	<0.50	-	-	-	-
C276	Consumables designed to match the composition and properties of alloy C276. It is also used for surfacing of steel. The weld metal has high resistance in a wide range of media and exceptional resistant to pitting and crevice corrosion. Applications include pumps, valves, pipework and vessels in chemical process plant, equipment for flue gas desulphurisation and for offshore in oil & gas field. Useful properties from -269°C to above 1000°C are achieved.	**DAIKOW 276**	MIG – TIG - SAW	A5.14 ERNiCrMo-4	EN ISO 18274 S Ni6276	<0.01	0.20	5.20	0.008	0.002	16.0	0.20	<0.01	59	-	-	-	16.1	-	0.05	3.4	<0.50	700	450	30	-
		DAIKO C276	SMAW	A5.11 ENiCrMo-4	EN ISO 14172 ENi6276	0.005	0.20	5.20	0.008	0.002	16.0	0.18	<0.01	59	-	-	-	16.0	-	0.02	3.4	<0.50	780	520	30	55 (-196°C)
		DAIKOFCW C276	FCAW	A5.34 ENiCrMo4T0-4	-	0.015	0.60	5.30	0.007	0.004	16.0	0.20	0.03	58	-	-	-	15.0	-	-	3.6	<0.50	720	460	45	50 (-196°C)
		DAIKOFCW C276P	FCAW	A5.34 ENiCrMo4T1-4	-	0.014	0.64	5.40	0.007	0.004	16.0	0.17	0.03	58,3	0,04	-	-	15.1	-	0,01	3.6	<0.50	719	466	46	53 (-196°C)
		DAIKOSTRIP C276	STRIP	A5.14 EQNiCrMo-4	-	0.002	0.50	5.50	<0.02	<0.01	15.6	0.02	0.10	58	1.20	-	-	15.4	-	0.15	3.8	<0.50	-	-	-	-
C22	Consumables designed to match the nickel base alloy commonly known as C22. The high level of Mo is similar to alloys C276 and C4 but performance in a wide range of more oxidising media is significantly enhanced in alloy C22 by increasing Cr to 22%. This alloy also provides a tough Nb-free weld metal for dissimilar welds in superaustenitic and superduplex stainless steel or combinations of these with Ni base alloys.	**DAIKOW 622**	MIG – TIG - SAW	A5.14 ERNiCrMo-10	EN ISO 18274 S Ni6022	0.005	0.20	4.60	0.005	0.001	14.0	0.05	-	56	-	-	-	22.0	-	0.01	3.0	<0.50	730	490	38	>100 (-196°C)
		DAIKO 122	SMAW	A5.11 ENiCrMo-10	EN ISO 14172 ENi6022	0.005	0.15	2.60	0.006	0.002	13.5	0.10	0.05	58	-	-	-	22.2	-	0.05	3.3	<0.50	760	510	35	50 (-196°C)
		DAIKOFCW 622	FCAW	A5.34 ENiCrMo10T1-1/4	-	0.02	0.40	5.20	0.007	0.004	13.8	0.20	<0.01	56	-	-	-	21.4	-	-	3.3	<0.50	730	460	30	-
		DAIKOSTRIP C22	STRIP	A5.14 EQNiCrMo-10	-	0.005	0.20	4.00	<0.025	<0.015	14.0	0.05	-	57	-	-	-	22.0	-	0.01	3.0	<0.50	-	-	-	-
59	Consumables designed to match the composition and properties of alloy 59. It is also used for surfacing of steel. The weld metal has high resistance in a wide range of media and exceptional resistant to pitting and crevice corrosion. It is also suitable to overmatching 625, C276, C4, C22, 59 alloys. The free Nb weld deposit is a right choice for dissimilar welds in superaustenitic and superduplex stainless steels.	**DAIKOW 59**	MIG – TIG - SAW	A5.14 ERNiCrMo-13	EN ISO 18274 S Ni6059	0.01	0.50	1.50	0.015	0.010	16.0	0.10	0.50	56	-	0.40	0.50	23.0	-	0.30	-	<0.50	730	510	40	90 (-196°C)
		DAIKO 59K	SMAW	A5.11 ENiCrMo-13	EN ISO 14172 ENi6059	0.02	0.55	1.20	<0.01	<0.01	16.2	0.20	0.15	58	-	0.04	0.02	22.5	-	0.15	-	<0.50	700	450	30	
		DAIKOSTRIP 59	STRIP	A5.11 EQNiCrMo-13	-	0.01	0.20	0.30	0.006	0.002	15.5	0.03	-	60	-	-	-	22.8	-	-	-	<0.50	-	-	-	-
686	Consumables designed to match the composition and properties of alloy 686. It is also used for surfacing of steel. The weld metal has exceptional resistant to pitting, crevice and general corrosion. It is also suitable to overmatching 625, C276, C4, C22, 59 alloys. Also suitable to weld superduplex and superaustenitic steels.	**DAIKOW 686** (1)	MIG – TIG - SAW	A5.14 ERNiCr-Mo-14	EN ISO 18274 S Ni6686	0.01	0.23	1.00	0.002	0.001	16.2	0.01	0.01	58	-	0.20	0.05	20.6	-	-	3.9	<0.50	>760	-	>35	-
		DAIKO 686K	SMAW	A5.11 ENiCrMo-14	EN ISO 14172 ENi6686	0.01	0.10	<0.1	0.004	0.010	16.3	0.20	0.004	55	-	-	0.02	21.7	-	-	3.9	<0.50	>690	-	>30	-
825	Consumables designed to match the nickel base alloy commonly known as 825 with corrosion resistance to organic acids and hot sulphuric acid.Applications include pressure vessel, piping, heat exchanger, valves and other components for chemical processing, offshore and oil and gas industries.	**DAIKOW 825**	MIG – TIG	A5.14 ERNiFeCr-1	EN ISO 18274 SNi8065	0.01	0.70	25	0.005	0.001	3.3	0.1	2.6	45	-	0.07	0.80	22.7	-	-	-	<0.50	>550	350	25	-
		DAIKO 135	SMAW	A5.4 (E383-16)	EN ISO 14172 ENi8025	0.02	0.80	Bal.	-	-	3.5	0.90	0.90	39	-	-	-	27.0	-	-	-	<0.50	640	440	38	70 (20°C)
		DAIKOSTRIP 825	STRIP	A5.14 EQNiFeCr-1	-	0.01	0.70	31	0.01	0.001	3.2	0.40	1.7	39	-	0.10	0.90	22.6	-	-	-	<0.50	-	-	-	-

(1) = Metal cored wire available upon request

continues >

NICKEL ALLOYS

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION																MECHANICAL PROPERTIES			
						C	Mn	Fe	P	S	Mo	Si	Cu	Ni	Co	Al	Ti	Cr	Nb	V	W	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
Weld-A	This consumable is similar to 182 but with lower Mn and Mo addition. It is used for welding of INCOLOY 800/800H, INCONEL 600 e 601 and nickel steels. Mo and Nb are added to give high resistance to hot cracking and tolerance to dilution. For this reason this electrode is exceptional for dissimilar welding such as combinations of carbon steel, stainless steel, Inconel, Incoloy, Monel and copper-nickel alloys. Service range from -269°C to above 900°C. Applications include also furnace equipment and petrochemical plants up to 900°C.	**DAIKO WELD-A**	SMAW	A5.11 ENiCrFe-2	EN ISO 14172 ENi6092	0.02	2.00	7.40	0.001	0.002	0.90	0.40	0.060	72.6	-	-	-	15.0	1.30	-	-	<0.50	550	410	30	-
617	These consumables are primarily used for high temperature applications up to about 1100°C. In addition to welding the parent metal alloy 617, it also gives excellent results in welding many dissimilar materials for high temperature applications such as alloy 800H and 800HT for service above 760°C, alloys 600 and 601, and cast alloys HK40, HP, HP45 mod.. Typical applications include furnace, combustion, pyrolysis, heat treatment components, flare tips, dusting and gas turbine parts.	**DAIKOW 617**	MIG - TIG - SAW	A5.14 ERNiCrCoMo-1	EN ISO 18274 S Ni6617	0.08	0.10	0.5	0.001	0.002	9,0	0.1	0.2	55	12	1.00	0.30	22.0	-	-	-	<0.50	>740	500	>40	>200 (20°C)
		DAIKO 117	SMAW	A5.11 ENiCrCoMo-1	EN ISO 14172 ENi6117	0.10	1.70	0.30	0.01	0.005	8.90	0.50	0.02	52.3	11	-	-	24.3	0.65	-	-	<0.50	620	450	35	70 (20°C)
718	DAIKOW 718 match the parent metal Alloy 718. The weld metal is age hardenable with excellent strength; its mechanical properties depend on the post weld heat treatment (PWHT). DAIKOW 718 has excellent corrosion resistance to many media. DAIKOW 718 filler metal can be also used for cladding and overlay of parts in the oil and gas industry.	**DAIKOW 718**	MIG - TIG	A5.14 ERNiFeCr-2	EN ISO 18274 S Ni7718	0.07	0.10	20.5	0.008	0.001	3.0	0.15	0.05	52	-	0.40	0.90	17.5	5.00	-	-	<0.50	860-1360	580-1120	28	-
Pure Nickel	Consumables designed for joining pure nickel and for surfacing of steel. They are suitable for dissimilar welding of pure nickel to stainless steels, carbon steels, nickel alloys, monel 400 and cupronickel. Also suitable for welding cast iron. Applications include tanks and vessels, heat exchangers, piping in chemical plant for salt production, chlorination and evaporation of caustic soda and, in particular, wherever corrosion resistance in alkalis is required.	**DAIKO 208** (1)	MIG - TIG - SAW	A5.14 ERNi-1	EN ISO 18274 S Ni2061	0.02	0.40	0.1	0.005	0.005	-	0.3	0.02	96	-	0.10	3.00	-	-	-	-	<0.50	580	330	30	-
		DAIKO 141	SMAW	A5.11 ENi-1	EN ISO 14172 ENi2061	0.02	0.30	0.4	0.01	0.01	-	0.48	0.01	96.7	-	0.03	1.20	-	-	-	-	<0.50	430	280	30	-130 (-20°C)
MONEL® 400	Designed to match the Monel alloy 400. These filler metals have a raised level of Mn and Ti to suppress hot cracking and porosity. Suitable for welding monel 400 to itself and to others Ni-Cu alloys (for example pure nickel and cupronickel). Normally buttering in dissimilar joints and buffer layer in cladding are made with pure nickel (DAIKO 208) or with 625 (DAIKOW 625). Applications include offshore and marine construction, heat exchangers, piping, desalination plant, chemical, petrochemical and power engineering industries.	**DAIKOW 418**	MIG - TIG - SAW	A5.14 ERNiCu-7	EN ISO 18274 S Ni4060	0.03	3.20	<1	0.005	0.005	-	0.2	29	64	-	0.10	2.20	-	-	-	-	<0.50	520	280	38	120 (-30°C)
		DAIKO 190	SMAW	A5.11 ENiCu-7	EN ISO 14172 ENi4060	0.07	3.50	1.0	0.005	0.005	-	0.8	30	64	-	0.05	0.90	-	-	-	-	<0.50	520	320	35	110 (-30°C)
		DAIKOSTRIP 418	STRIP	A5.14 EQNiCu7		0.03	3.50	0.1	0.002	0.001	-	0.2	29	64.8	-	0.02	2.30	-	-	-	-	<0.50	-	-	-	-
690	Designed to match alloy 690, often used in place of alloy 600 for high temperature corrosion applications, especially in the nuclear industry where the higher Chromium content providing greater resistance to stress-corrosion cracking in the nuclear water environment. This product can also be used to overlay carbon and low alloy steels. Typical applications include nuclear industry and several acid processing equipment.	**DAIKOW 652**	MIG - TIG - SAW	A5.14 ERNiCrFe-7	EN ISO 18274 S Ni6052	0.01	0.40	8.6	0.005	0.001	0.01	0.2	0.01	59.5	-	0.25	0.45	29.7	0.75	-	-	<0.50	700	420	40	200 (-50°C)
		DAIKO 152	SMAW	A5.11 ENiCrFe-7	EN ISO 14172 ENi6152	0.04	3.00	8.20	<0.003	<0.001	0.20	0.55	<0.01	57.2	-	0.30	0.20	28.7	1.60	-	-	<0.50	>550	-	>30	-
		DAIKOW 652M (1)	MIG - TIG - SAW	A5.14 ERNiCrFe-7A	UNS N06054	0.01	0.40	8.6	0.005	0.001	0.01	0.2	0.01	59.5	-	0.25	0.45	29.7	0.75	-	-	B, Zr	700	420	40	200 (-50°C)
92	DAIKO 92 is used for joining nickel base alloys (600, 601, 800) to themselves and to stainless steels, carbon steels and Monel alloys. DAIKO 92 is also used for surfacing carbon steels. The high Ti content provides excellent porosity resistance in field welding applications. Typical applications include desalination plants, piping, furnace equipment and petrochemical and power generation plants. Working temperature from cryogenic to ~950°C.	**DAIKOW 92**	MIG - TIG	A5.14 ERNiCrFe-6	EN ISO 18274 S Ni7092	0.05	2.40	7.3	0.001	0.002	-	0.02	0.01	70	-	-	3.00	16.7	-	-	-	<0.50	600	400	40	-
602	This product is a hightemperature material with excellent resistance to creep and oxydation up to 1200°C.	**DAIKOW 602**	MIG - TIG	A5.14 ERNiCrFe-12	EN ISO 18274 S Ni6025	0.17	0.07	9.8	0.005	0.002	-	0.05	0.01	62	-	2.3	0.15	25.0	-	-	-	Zr, Y	>720	>500	>25	20 (-20°C)

(1) = Metal cored wire available upon request

continues >

NICKEL ALLOYS

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION																MECHANICAL PROPERTIES			
						C	Mn	Fe	P	S	Mo	Si	Cu	Ni	Co	Al	Ti	Cr	Nb	V	W	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
INVAR®	Consumable designed to have very low thermal expantion to provide freedom to solidification and reheat cracking.	**DAIKOW 36 INV**	MIG – TIG - SAW	-	W.Nr. 1.3912	0.23	0.53	61.1	0.003	0.001	-	0.35	0.05	36	-	0.10	0.30	-	1.30	-	-	-	450	350	25	-
50/50Nb	Alloy 657 has exceptional resistance to hot corrosion (800-950°C). It is used in a wide range of components in oil-fired furnaces and boilers such as tube sheets, tube hangers, supports and spacers in ships, power stations, refineries, and petrochemical plants.	**DAIKOW 657**	MIG – TIG	A5.14 ERNiCr-4	EN ISO 18274 S Ni6072	0.01	0.10	0.2	0.002	0.008	-	0.1	0.2	55	-	-	0.6	44.0	-	-	-	<0.50	>690	-	>30	-
		G-TECH 657	SMAW	A5.11 ENiCr-4	-	0.07	1.00	0.5	0.01	0.01	-	0.5	0.05	47	-	-	-	49.0	1.80	-	-	N=0.05	900	690	3	-
657M	Used for welding Ni-Cr-Fe alloys and for overlay cladding in high temperature applications.	**DAIKOW 657M**	MIG – TIG	A5.14 ERNiCr-7	-	0.03	0.50	1.0	0.002	0.002	0.5	0.3	0.3	55	1.0	1.00	0.70	38.5	0.80	-	-	B, Zr	>690	-	>30	-
ALLOY X	Consumables for welding Hastelloy® X base metal and dissimilar welding of this alloy to nickel base alloys, stainless, carbon and low alloy steels. Outstanding strenght and oxidation resistance up to 1200°C. Also suitable for overlay cladding.	**DAIKOW X**	MIG – TIG	A5.14 ERNiCr-Mo-2		0.05	0.50	18.50	0.01	0.001	8.50	1.00	0.5	48	1.0	-	-	21.3	-	-	0.5	<0.50	>660	-	-	-

DUPLEX - SUPERDUPLEX

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION												MECHANICAL PROPERTIES			
						C	Cr	Ni	Mo	Nb+Ta	Mn	Si	P	S	N	Cu	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
2209	These alloys are finding widening application in the offshore oil/gas, chemical and petro-chemical process industries for their good resistance to stress corrosion cracking and pitting corrosion with typical pitting resistance equivalent number (PREN) of 35-36. The weld metal poses a high tensile and yield strength.	**DAIKOW 2209**	MIG - TIG - SAW	A5.9 ER2209	EN ISO 14343-A 22 9 3 N L	0.010	23.2	8.6	3.30	-	1.45	0.45	0.015	0.015	0.17	0.05	<0.50	800	>560	30	>60 (-50°C)
		G-TECH 2209B	SMAW	A5.4 E2209-15	EN ISO 3581-A E 22 9 3 N L B 42	0.035	23.0	9.2	3.20	-	1.50	0.70	0.020	0.010	0.17	0.10	<0.50	750	650	26	60 (-50°C)
		G-TECH 2209	SMAW	A5.4 E2209-16	EN ISO 3581-A E 22 9 3 N L R 12	0.030	23.0	9.5	3.10	-	1.05	0.90	0.015	0.010	0.17	0.05	<0.50	750	>600	>25	>80 (20°C)
		G-TECH 2209R	SMAW	A5.4 E2209-17	EN ISO 3581-A E 22 9 3 N L R 12	0.030	22.4	9.4	3.20	-	0.65	0.90	0.020	0.010	0.16	0.05	<0.50	>690	>550	>20	-
		DAIKOFCW 2209P	FCAW	A5.22 E2209T1-4 E2209T1-1/4	EN ISO 17633-A T 22 9 3 N L P M21 1	0.030	22.9	9.4	3.50	-	0.80	0.60	0.020	0.008	0.15	-	<0.50	850	670	30	45 (-20°C)
		DAIKOFCW 2209 (1)	FCAW	A5.22 E2209T0-4 E2209T0-1/4	EN ISO 17633-A T 22 9 3 N L R M21 3	0.030	23.3	9.3	3.40	-	0.95	0.75	0.020	0.008	0.15	-	<0.50	850	660	30	>45 (-20°C)
		DAIKOSTRIP 2209	STRIP	A5.9 EQ2209	EN ISO 14343 22 9 3 N L	0.020	23.0	9.0	3.10	-	1.60	0.50	<0.020	<0.015	0.15	-	<0.50	-	-	-	-
2507	Consumables for 25% Superduplex stainless steels. Offshore applications exploit the high resistance to pitting (typical pitting resistance equivalent number "PREn" of 43) and stress corrosion cracking in seawater. It is also highly resistant to caustic alkalis and phosphoric acid. Widely used in oil and gas production and process.	**DAIKOW 2594**	MIG - TIG - SAW	A5.9 ER2594	EN ISO 14343-A 25 9 4 N L	0.010	25.0	9.3	4.00	-	0.55	0.40	<0.020	<0.015	0.25	0.10	<0.50	880	665	23	75 (-60°C)
		G-TECH 2594B (2)	SMAW	A5.4 E2594-15	-	0.035	25.5	9.5	4.00	-	0.90	0.70	0.020	0.010	0.24	0.30	<0.50	>850	>650	>22	60 (-50°C)
		DAIKOFCW 2594P (1)	FCAW	A5.22 E2594T1-4	EN ISO 17633-A T 25 9 4 N L P C1- M21 1	0.030	25.9	9.7	4.00	-	1.20	0.50	0.020	0.005	0.25	-	<0.50	900	700	27	40 (-40°C)
		DAIKOSTRIP 2594	STRIP	A5.9 EQ2594	EN ISO 14343 25 9 4 N L	0.020	25.0	9.5	4.00	-	0.40	0.30	<0.020	<0.015	0.25	0.10	<0.50	-	-	-	-
2553	Consumable designed to match similar alloys base metal. Applications include pumps and valves, corrosion/wear resisting parts, and process equipment for use in offshore oil and gas industries, pulp, paper and textile industries, and chemical and petrochemical plant.	**G-TECH 2553**	SMAW	A5.4 E2553-16	EN ISO 3581-A E 25 9 3 Cu NL R 32	0.035	24.5	7.8	3.5	-	1.23	0.90	0.020	0.010	0.22	1.90	<0.50	>760	>600	>15	>50 (20°C)
		DAIKOFCW 2553	FCAW	A5.22 E2594T0-4	EN ISO 17633-A T 25 9 4 Cu NL R M213	0.030	26.35	8.75	4.25	-	1.15	0.50	0.015	0.002	0.2	1.22	<0.50	950	830	22	50 (-20°C)
		DAIKOFCW 2553P	FCAW	A5.22 E2594T1-4	EN ISO 17633-A T 25 9 4 Cu NL P M211	0.030	26.35	8.75	4.25	-	1.15	0.50	0.015	0.002	0.2	1.22	<0.50	880	690	25	50 (-20°C)
ZERON 100®	Superduplex filler metal matching the proprietary Zeron® 100 alloy. The presence of Cu+W in this alloy provides superior resistance to sulphuric and hydrochloric acids when compared to similar alloys without these additions. Offshore applications exploit the high resistance to pitting and stress-corrosion cracking in seawater. It is also highly resistant to caustic alkalis and phosphoric acid. Service temperature range is usually limited to -50°C to 280°C. It is widely used in oil and gas production and process pipework, risers, manifolds, pressure vessels, valves, pumps, desalination plant, systems for flue-gas desulphurisation (FGD) and also in the mining, chemical and pharmaceutical industries.	**DAIKOW 2594Cu**	MIG - TIG - SAW	A5.9 ER2594	EN ISO 14343-A 25 9 4 N L	0.020	25.0	9.1	3.6	-	0.60	0.30	<0.020	<0.015	0.23	0.60	W=0.65	870	670	24	60 (-50°C)
		G-TECH 2595B (2)	SMAW	A5.4 E2595-15	EN ISO 3581-A E 25 9 4 N L B 42	0.035	25.5	9.5	4.00	-	0.90	0.70	0.020	0.010	0.24	0.70	W=0.50	>850	>630	>22	>40 (-50°C)
		DAIKOFCW 2595 (3)	FCAW	A5.22 E2594T0-4	EN ISO 17633-A T 25 9 4 Cu NL R M213	0.030	25.0	9.0	3.80	-	1.40	0.60	0.015	0.008	0.26	1.00	W=0.60	850	670	25	45 (20°C)

(1) = Metal cored wire available upon request
(2) = Rutile-basic (-16) version available upon request
(3) = Basic flux cored wire for improved toughness available upon request

SUPERAUSTENITIC STEELS

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION											MECHANICAL PROPERTIES			
						C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
ALLOY 20	These consumables give a fully austenitic weld metal with high resistance to corrosion in sulphuric acid, mineral acids and organic acids. Typical applications include tanks and vessels, piping, cast pumps, valves, heat exchanger and other components used in chemical processing, metal cleaning and pickling industries.	**DAIKOW 320LR**	MIG - TIG	A5.9 ER320LR	-	0.02	19.6	34.0	2.5	1.60	0.05	0.007	0.001	-	3.40	Nb=0.25	590	400	35	>100 (20°C)
		G-TECH 320LHR	SMAW	A5.4 E320LR-26	-	0.02	19.9	33.8	2.3	1.70	0.16	0.016	0.006	-	3.20	Nb=0.10	535	340	30	>60 (-196°C)
904L	Consumables designed for welding of 904L alloy and gives fully austenitic weld metal with good resistance to corrosion in inorganic and organic acids. Typical applications include tanks and vessels, piping, cast pumps, valves and other components used in fertiliser, phosphoric, sulphuric and acetic plants, and in salt and seawater environments. It also used in some offshore applications.	**DAIKOW 385**	MIG - TIG - SAW	A5.9 ER385	EN ISO 14343-A 20 25 5 Cu L	0.01	20.0	25.0	4.3	1.65	0.35	0.015	0.010		1.45	<0.50	650	490	35	200 (20°C)
		G-TECH 385B	SMAW	A5.4 E385-15	EN ISO 3581-A E 20 25 5 Cu N LB 62	0.03	21.0	25.0	4.8	2.00	0.40	0.020	0.005	0.08	1.80	Nb=0.05	620	440	40	50 (-196°C)
		G-TECH 385	SMAW	(A5.4 E385-16)	EN ISO 3581-A E 20 25 5 Cu N LR 12	0.03	20.0	25.0	4.5	1.30	1.10	0.020	0.015	-	1.30	<0.50	>570	>370	>35	>70 (20°C)
		DAIKOFCW 904L	FCAW	A5.22 (E385T0-4)	EN ISO 17633-A T Z 20 25 5 Cu L R M 3	0.03	21.0	25.5	4.9	3.00	0.50	0.020	0.008	-	1.60	<0.50	660	440	35	50 (-196°C)
		DAIKOFCW 904LP	FCAW	A5.22 NO AWS	EN ISO 17633-A T 20 25 5 Cu N L P M21 2	0.03	20.9	25.3	4.7	1.60	0.65	0.024	0.005	0.15	1.50	<0.50	660	420	35	60 (-196°C)
		DAIKOMCW 385	FCAW	A5.22 EC385	EN ISO 17633-A T Z 20 25 5 Cu L M I1 1	0.02	21.0	25.0	5.0	2.50	0.40	0.020	0.008	-	1.50	<0.50	640	410	35	40 (-196°C)
		DAIKOSTRIP 385	STRIP	A5.9 EQ385	EN ISO 14343 B 20 25 5 Cu L	0.01	20.0	25.0	4.5	1.80	0.40	<0.015	<0.015	-	1.50	<0.50	-	-	-	-
310	These consumables are used to weld 310 fully austenitic stainless steels. Applications include heat shields, furnace and boiler parts, heat exchanger and ducting for the good resistance to high temperature oxidation of these alloys. Also suitable for dissimilar joints, buffer layers, weld overlay and cryogenic applications.	**DAIKOW 310**	MIG - TIG - SAW	A5.9 ER310	EN ISO 14343-A 25 20	0.10	26.0	21.0	0.1	1.80	0.40	0.020	0.005	-	0.10	<0.50	560	360	40	>50 (-196°C)
		G-TECH 310	SMAW	A5.4 E310-16	EN ISO 3581-A E 25 20 R 12	0.10	26.0	21.0	0.2	2.00	0.60	0.020	0.010	-	0.10	<0.50	580	400	30	>60 (20°C)
		G-TECH 310B	SMAW	A5.4 E310-15	EN ISO 3581-A E 25 20 B 42	0.10	26.0	21.0	0.2	2.00	0.60	0.020	0.010	-	0.10	<0.50	>600	>400	>30	>80 (20°C)
		DAIKOW 310Mn	MIG - TIG	A5.9 (E310)	EN ISO 14343-A G 25 20	0.13	25.0	20.6	0.1	3.05	0.90	0.015	0.010	-	0.04	<0.50	610	400	35	32 (-196°)
		G-TECH 310Mn	SMAW	A5.4 (E310-16)	-	0.13	26.0	20.0	0.2	4.10	1.00	0.020	0.010	-	0.10	<0.50	>600	>420	>30	>80 (20°C)
		G-TECH 310Mo	SMAW	A5.4 E310Mo-16	EN ISO 3581-A E Z 25 20 3 R 12	0.10	25.0	20.0	2.7	2.80	0.60	0.020	0.010	-	0.10	<0.50	570	380	35	70 (20°C)
		DAIKOFCW 310	FCAW	A5.22 E310T0-1/4	EN ISO 17633 A T 25 20 R C1-M21 3	0.18	25.5	20.4	-	2.10	0.60	0.015	0.005	-	-	<0.50	620	420	>30	70 (20°C)
310H	Consumable designed to weld HK40 base material for centrifugally cast tubes operating at approx.. 1000° C . Applications include components for petrochemical and chemical plants and components for cement, ceramic and steel industries.	**G-TECH 310H**	SMAW	A5.4 E310H-15	EN ISO 3581-A E 25 20 H B	0.40	26.0	21.0	0.1	1.70	0.50	0.020	0.010	-	0.05	<0.50	760	550	18	-

FERRITIC MARTENSITIC STAINLESS STEEL

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION											MECHANICAL PROPERTIES			
						C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
409Nb	Consumables used for welding similar 12% Cr ferritic steels in application such as catalytic converters and mufflers.	**DAIKOW 409Nb**	MIG - TIG - SAW	A5.9 ER409Nb	-	0.040	11.5	0.40	0.30	0.65	0.50	0.020	0.020	-	0.16	<0.50	460	350	26	-
410	Consumables designed for welding similar parental metal, martensitic 12%Cr stainless steels, and for weld overlay on carbon steels to resist corrosion, erosion or abrasion. Applications include reaction vessels, pipework in refineries, furnace parts, turbine parts, cast valves, etc. ...	**DAIKOW 410** (1)	MIG - TIG - SAW	A5.9 ER410	EN ISO 14343-A 13	0.050	13.0	0.20	0.1	0.45	0.30	0.02	0.005	-	-	<0.50	690	530	22	-
		G-TECH 410B	SMAW	A5.4 E410-15	EN ISO 3581-A E 13 B 42	0.070	12.50	0.30	0.2	0.8	0.5	0.015	0.01	-	-	<0.50	>520	>440	>18	>47 (+20°C)
		G-TECH 410HR	SMAW	A5.4 E410-26	EN ISO 3581-A E 13 R 52	0.090	13.10	0.40	0.1	0.6	0.7	0.015	0.01	-	-	<0.50	>480	>320	>20	>47 (+20°C)
		G-TECH 410	SMAW	A5.4 E410-16	EN ISO 3581-A E 13 R 12	0.080	12.90	0.40	0.1	0.7	0.6	0.015	0.01	-	-	<0.50	>420	>320	>20	>47 (+20°C)
410NiMo	Consumables designed for welding similar 410NiMo martensitic stainless steels base metal. 410NiMo is a high strength martensitic stainless steel with good resistance to corrosion, hydro-cavitation, sulphide-induced SCC, and good sub-zero toughness (compared with standard 410 steels). The 410NiMo consumables are also used for overlaying mild and CMn steels. Applications include turbines, valve bodies, high pressure piping, offshore, power generation	**DAIKOW 410NiMo**	MIG - TIG - SAW	A5.9 ER410NiMo	EN ISO 14343-A 13 4	0.020	12.15	4.55	0.5	0.35	0.35	0.020	0.020	-	-	<0.50	880	840	20	>50 (0°C)
		G-TECH 410 NiMoB	SMAW	A5.4 E410NiMo-15	EN ISO 3581-A E 13 4 B 42	0.050	12.1	4.50	0.5	0.70	0.80	0.015	0.010	-	-	<0.50	>800	>600	15	>50 (+20°C)
		G-TECH 410NiMo	SMAW	A5.4 E410NiMo-16	EN ISO 3581-A E 13 4 R 52	0.040	12.2	4.70	0.4	0.50	0.80	0.015	0.010	-	-	<0.50	>780	>600	17	>50 (+20°C)
		DAIKOFCW 410NiMo	FCAW	A5.22 E410NiMoT1-1/4	-	0.020	11.60	4.30	0.6	1.50	0.35	0.020	0.005	-	-	<0.50	920	840	17	>40 (-20°C)
		DAIKOMCW 410NiMo	FCAW	A5.22 EC410NiMo	-	0.020	11.80	4.40	0.6	0.45	0.25	0.020	0.005	-	-	<0.50	890	810	19	>60 (0°C)
420	Consumables similar to 410 with higher chromium and carbon contents; used for surfacing operations requiring corrosion resistance and wear resistance.	**DAIKOW 420B**	MIG - TIG - SAW	A5.9 ER420	-	0.300	13.00	0.50	-	0.60	0.50	<0.030	<0.030	-	0.30	<0.50	hardness 390/400 Hb		-	-
		DAIKOW 420C	MIG - TIG - SAW	A5.9 ER420	-	0.400	13.00	0.50	-	0.60	0.50	<0.030	<0.030	-	0.30	<0.50	hardness 420/460 Hb		-	-
430	Ferritic stainless steel with good ductility in heat treated condition. Application include welding of similar parental metal, weldoverlay and thermal spraying. These consumables include stabilized version with Niobium and/or Titanium designed for the automotive industry and used in the production of exhaust systems.	**DAIKOW 430**	MIG - TIG - SAW	A5.9 ER430	EN ISO 14343-A 17	0.025	16.20	0.20	-	0.45	0.40	<0.020	<0.020	-	-	<0.50	530	410	25	-
		DAIKOW 430LNb	MIG - TIG - SAW	A5.9 (ER430)	EN ISO 14343-A 18LNb	0.015	18.1	0.30	-	0.30	0.40	<0.020	<0.020	-	-	Nb=0.45	420	275	26	-
		DAIKOW 430LNbTi	MIG - TIG	A5.9 (ER430)	EN ISO 14343-A (18LNb)	0.030	18.00	0.20	-	0.55	0.65	<0.020	<0.020	-	-	<0.50	420	275	26	-
		DAIKOW 430Ti	MIG	A5.9 (ER430)	EN ISO 14343-A G Z17Ti	0.030	17.50	0.20	-	0.60	0.65	<0.020	<0.020	-	-	<0.50	420	270	25	-
		G-TECH 430	SMAW	A5.4 E430-16	EN ISO 3581-A E 17 R 52	0.100	17.0	-	-	0.70	0.20	<0.020	<0.020	-	-	<0.50	>500	>420	>15	-
		G-TECH 430B	SMAW	A5.4 E430-15	EN ISO 3581-A E 17 B 42	0.060	17.1	-	-	0.80	0.40	<0.020	<0.020	-		<0.50	>500	>420	>15	-
		DAIKOMCW 430	FCAW	A5.22 - NO AWS	-	0.050	17.00	0.10	-	0.15	0.40	0.010	0.020	-	-	Nb=0.75	540	390	26	-
		DAIKOSTRIP 430	STRIP	A5.9 EQ430	-	0.015	16.60	-	-	0.30	0.35	0.025	0.005	-	-	-	-	-	-	-
630 (17-4-PH)	Consumables used for welding materials of similar chemical composition such as 17-4 and 17-7. Can be used in the as welded condition or may be heat treated to obtain higher strength.	**DAIKOW 630**	MIG - TIG - SAW	A5.9 ER630	-	0.030	16.30	4.80	0.2	0.60	0.40	0.020	0.005	-	3.50	Nb=0.20	930	740	10	-
		G-TECH 630	SMAW	A5.4 E630-16	EN ISO 3581-B E 630-16	0.020	16.5	4.0	0.2	0.60	0.30	0.010	0.010	-	2.30	<0.50	>950	>600	>7	-
4122	Hard martensitic stainless steel deposit for wear resistance surfacing. Typical applications include continuous caster rolls and moulds for ceramic industries.	**DAIKOW 4122**	MIG - TIG - SAW	A5.9 - NO AWS	-	0.400	17.0	1.0	1.2	1.00	0.60	<0.020	<0.020	-	-	<0.50	750	550	12	-
		G-TECH 4122	SMAW	A5.4 - NO AWS	EN ISO 3581-A E 17 1 B 42	0.200	17.0	0.5	1.2	0.7	0.2	0.01	0.01	-	-	<0.50	>680	>600	15	-
248SV	Designed for welding corrosion resistant martensitic-ferritic stainless steels of similar composition (type Outokumpu 248SV). It combines good toughness with excellent resistance to cavitation and to stress corrosion cracking.Typical applications include reparing of casting defects, fabrication and rebuilding on components used in the water turbines and pump."	**DAIKOFCW 16-5-1**	FCAW	NO AWS	EN ISO 17633-A T Z 16 5 1 B M12 2	0.03	15.6	4.5	1.0	1.0	0.50	<0.015	<0.010	-	-	<0.50	900*	750*	17*	>60 (-20°C)*

(1) = Flux cored wire available upon request

*values with PWHT

AUSTENITIC STAINLESS STEEL

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION											MECHANICAL PROPERTIES			
						C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
308L	These consumables are used to weld 304L stainless steels (18/8) base materials. Mainly applications include food industries, pharmaceutical equipment and general fabrication. Typical service temperatures are -100°C to 400°C.	**DAIKOW 308L**	MIG - TIG - SAW	A5.9 ER308L	EN ISO 14343-A 19 9 L	0.010	20.0	10.0	-	1.65	0.40	0.020	0.007	-	-	<0.50	570	435	40	>70 (-130°C)
		DAIKOW 308LSi	MIG - TIG	A5.9 ER308LSi	EN ISO 14343-A 19 9 L Si	0.010	20.0	10.0	-	1.60	0.90	0.020	0.010	-	-	<0.50	570	435	40	70 (-130°C)
		G-TECH 308LB	SMAW	A5.4 E308L-15	EN ISO 3581-A E 19 9 L B 22	0.030	19.0	9.0	-	1.90	0.70	0.020	0.010	-	-	<0.50	>580	>420	>35	>100 (20°C)
		G-TECH 308L	SMAW	A5.4 E308L-16	EN ISO 3581-A E 19 9 L R 12	0.030	19.0	9.0	-	0.75	0.80	0.020	0.010	.	-	<0.50	>520	>350	>35	>47 (20°C)
		G-TECH 308LR	SMAW	A5.4 E308L-17	EN ISO 3581-A E 19 9 L R 12	0.025	19.7	9.8	-	0.90	0.90	0.015	0.020	-	-	<0.50	>520	>350	>35	>47 (20°C)
		DAIKOFCW 308LP	FCAW	A5.22 E308LT1-1/4	EN ISO 17633-A 19 9 L P C1/M21 1	0.030	19.5	9.9	-	1.70	0.70	0.020	0.004	-	-	<0.50	580	410	35	36 (-196°C)
		DAIKOFCW 308L	FCAW	A5.22E308LT0-1/4	EN ISO 17633-A 19 9 L R C1/M21 3	0.020	19.7	10	-	1.60	0.60	0.020	0.005	-	-	<0.50	570	410	40	45 (-20°C)
		DAIKOSTRIP 308L	STRIP	A5.9 EQ308L	EN ISO 14343-A 19 9 L	0.010	20.0	10	-	1.80	0.40	0.015	0.010	-	-	<0.50	-	-	-	-
308LCF	These consumables are used to weld 304L stainless steels (18/8) used in cryogenic applications (down to -196°C). These product have a controlled ferrite (3÷8). Mainly applications include pipework and vessel for cryogenic service.	**DAIKOW 308LCF**	MIG -TIG - SAW	A5.9 ER308L	EN ISO 14343-A 19 9 L	0.010	20.0	10	-	1.70	0.40	0.015	0.010	-	0.15	FN=3÷8	600	460	32	>60 (-196°C)
		G-TECH 308LCF-B	SMAW	A5.4 E308L-15	EN ISO 3581-A E 19 9 L B 4 2	0.030	18.5	10	-	1.20	0.30	0.015	0.020	-	-	FN=2÷5	600	440	50	43 (-196°C)
		G-TECH 308LCF	SMAW	A5.4 E308L-16	EN ISO 3581-A E 19 9 L R 3 2	0.020	18.5	10	-	1.00	0.60	0.020	0.010	-	-	FN=2÷5	570	440	44	35 (-196°C)
		DAIKOFCW 308LCF-P (1)	FCAW	A5.22 E308LT1-1/4	EN ISO 17633-A 19 9 L P C1/M21 1	0.030	19.0	10	-	1.40	0.70	0.016	0.005	-	-	FN=5÷6	640	420	40	50 (-100°C)
308H	These products are designed to match 304/304H austenitic stainless steels for elevated temperature strength. The carbon content of these consumables is over 0.04%. These consumables are suitable to weld heavy thick (>12mm) of 321H and 347H to avoid typical service HAZ cracking of these grades. Mainly applications include petrochemical and chemical process plant. Typical service temperatures are 400°C to 800°C.	**DAIKOW 308H**	MIG - TIG - SAW	A5.9 ER308H	EN ISO 14343-A 19 9 H	0.055	20.0	9.5	-	1.80	0.40	0.015	0.005	-	0.10	<0.50	590	420	42	100 (+20°C)
		G-TECH 308HB	SMAW	A5.4 E308H-15	EN ISO 3581-A E 19 9 H B 4 2	0.065	20.2	9.7	-	1.50	0.85	0.015	0.010	0.1	0.03	<0.50	>570	>400	>35	>80 (+20°C)
		G-TECH 308H	SMAW	A5.4 E308H-16	EN ISO 3581-A E 19 9 H R 3 2	0.050	18.5	9.5	-	1.00	0.40	0.020	0.010	-	-	<0.50	650	450	41	100 (+20°C)
		DAIKOFCW 308HP	FCAW	A5.22 E308HT1-1/4	EN ISO 17633-A TZ 19 9 H R C1/ M21 3	0.060	19.3	9.5	-	1.30	0.50	0.020	0.004	-	-	<0.50	600	420	44	70 (0°C)
316L	These consumables are used for Mo bearing austenitic stainless steels with 1.5 ÷ 3 Mo. 316 steels are used for their good resistance to pitting, many acids and general corrosion.	**DAIKOW 316L**	MIG - TIG - SAW	A5.9 ER316L	EN ISO 14343-A 19 12 3 L	0.020	18.4	12.5	2.60	1.55	0.35	0.015	0.010	-	0.15	<0.50	570	435	42	>30 (-196°C)
		DAIKOW 316LSi	MIG - TIG	A5.9 ER316LSi	EN ISO 14343-A 1912 3 L Si	0.020	18.4	12.2	2.55	1.50	0.85	0.018	0.015	-	0.08	<0.50	570	435	42	>30 (-196°C)
		G-TECH 316LB	SMAW	A5.4 E316L-15	EN ISO 3581-A E 19 12 3 LB 22	0.040	19.3	11.5	2.80	1.90	0.80	0.010	0.010	0.05	0.05	<0.50	>567	>483	>45	>80 (20°C)
		G-TECH 316L	SMAW	A5.4 E316L-16	EN ISO 3581-A E 19 12 3 LR 12	0.025	19.6	11.4	2.34	0.86	0.86	0.020	0.020	-	0.05	<0.50	>560	>430	>28	>60 (20°C)
		G-TECH 316LR	SMAW	A5.4 E316L-17	EN ISO 3581-A E 19 12 3 LR 12	0.025	19.1	11.5	2.35	0.85	0.85	0.015	0.020	-	0.05	<0.50	>520	>350	>30	>70 (20°C)
		DAIKOFCW 316LP	FCAW	A5.22 E316LT1-1/4	EN ISO 17633-A T 19 12 3 L P C1/M21 1	0.030	18.4	12.3	2.90	1.40	0.70	0.019	0.006	-	-	<0.50	570	430	40	46 (-20°C)
		DAIKOFCW 316L	FCAW	A5.22 E316LT0-1/4	EN ISO 17633-A T 19 12 3 L R C1/M21 3	0.030	18.7	12.2	2.80	1.60	0.60	0.020	0.006	-	-	<0.50	570	430	39	44 (-20°C)
		DAIKOSTRIP 316L	STRIP	A5.9 EQ316L	EN ISO 14343-A 19 12 3 L	0.020	18.5	13.0	2.90	1.80	0.40	0.015	0.015	-	<0.3	<0.50	-	-	-	-
316LCF	These consumables are used for Mo bearing austenitic stainless type 316L used in cryogenic applications (down to -196°C). These product have a controlled ferrite (3÷8). Mainly applications include pipework and vessel for cryogenic service.	**DAIKOW 316LCF**	TIG - SAW	A5.9 ER316L	EN ISO 14343-A 19 12 3 L	0.010	18.5	12.8	2.60	1.40	0.50	0.015	0.010	-	0.15	FN=6	600	460	45	60 (-196°C)
		G-TECH 316LCF-B	SMAW	A5.4 E316-L15	EN ISO 3581-A E 19 12 3 L B 42	0.030	19.0	12.0	2.20	1.20	0.30	0.020	0.010	-	-	FN=3	600	470	35	35 (-50°C)
		G-TECH 316LCF	SMAW	A5.4 E316-L16	EN ISO 3581-A E 19 12 3 L R 32	0.030	18.0	12.0	2.20	1.10	0.50	0.020	0.010	-	-	FN=6	590	440	40	50 (-100°C)
		DAIKOFCW 316LCF	FCAW	A5.22 E316LT1-1/4	-	0.030	17.6	12.4	2.20	1.20	0.50	0.020	0.010	-	-	FN=5	540	410	44	50 (-100°C)
316NF	Consumables with high nickel and nitrogen providing a fully austenitic and non-magnetic weld metal.	**DAIKOW 316MnNF**	MIG - TIG - SAW	A5.9 ER316LMn	EN ISO 14343-A G 20 16 3 Mn L	0.015	20.0	16.0	3.00	7.00	0.40	0.020	0.010	0.15	-	FN=0	600	400	30	50 (-196°C)
		G-TECH 316LMn-B	SMAW	A5.4 (E316LMn-15)	EN ISO 3581-A E 18 15 3 L B 12	0.030	18.0	16.0	2.80	3.50	0.40	0.020	0.010	0.15	-	FN=0	610	440	35	50 (-196°C)
		G-TECH 316LMn	SMAW	A5.4 (E316LMn-16)	EN ISO 3581-A E 18 15 3 L R 32	0.030	18.0	16.0	2.80	3.00	0.40	0.020	0.010	0.15	-	FN=0	610	430	35	60 (-196°C)
		DAIKOFCW 316NF	FCAW	-	EN ISO 17633-A T 18 16 5 N L B M21 3	0.030	19.5	16.5	4.00	3.00	0.25	0.015	0.015	0.10	-	FN=0	600	420	40	70 (+20°C)

(1) = Also available flat position version

continues >

AUSTENITIC STAINLESS STEEL

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION											MECHANICAL PROPERTIES			
						C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
316H	These products are designed to match 316/316H austenitic stainless steels for elevated temperature (500-800°C). The carbon content of these consumables is over 0.04%. These consumables are suitable to weld 321/321H and 347/347H in high temperature service. Typical applications include steam pipes, furnace parts, components for the petrochemical industries and for power stations.	**DAIKOW 316H**	MIG - TIG - SAW	A5.9 ER316H	EN ISO 14343-A 19 12 3 H	0.050	19.0	13.0	2.20	1.80	0.50	0.020	0.010	-	0.15	<0.50	650	460	35	100 (+20°C)
		G-TECH 316HB	SMAW	A5.4 E316H-15	EN ISO 3581-A E 19 12 2 B 42	0.050	18.4	12.5	2.25	1.70	0.560	0.020	0.010	-	0.15	<0.50	660	470	34	50 (+20°C)
		G-TECH 316H	SMAW	A5.4 E316H-16	EN ISO 3581-A E 19 12 2 R 32	0.050	18.0	12.0	2.20	1.80	0.50	0.020	0.010	-	0.15	<0.50	650	460	35	50 (+20°C)
16.8.2	Consumables designed to weld 16-8-2, 316 and 347 grades of stainless steel in high temperature service. These products are recommended to weld thicker section of 347H/321Hbase metal to avoid in-service failure.	**DAIKOW 16.8.2**	MIG - TIG - SAW	A5.9 ER16.8.2	EN ISO 14343-A 16 8 2	0.060	15.5	8.5	1.30	1.40	0.40	0.020	0.010	-	0.10	<0.50	620	450	35	-
		G-TECH 16.8.2B	SMAW	A5.4 E16.8.2-15	EN ISO 3581-A E 16 8 2 B	0.050	15.5	8.5	1.20	1.80	0.30	0.020	0.010	-	0.10	<0.50	630	420	40	50 (-100°C)
		G-TECH 16.8.2	SMAW	A5.4 E16.8.2-16	EN ISO 3581-A E 16 8 2 R 12	0.050	15.5	8.5	1.20	1.00	0.45	0.020	0.010	-	0.10	<0.50	630	420	42	70 (+20°C)
		DAIKOFCW 16.8.2P	FCAW	-	-	0.030	15.5	8.5	1.50	1.50	0.70	0.020	0.015	-	-	<0.50	590	390	38	-
317L	These consumables are used to weld 317/317L austenitic stainless steels. Applications include marine, papermaking, chemical process and food processing applications. Also suitable to overmatch 316/316L steels; the benefit of higher Mo content in the weld metal maximizes the pitting resistance.	**DAIKOW 317L**	MIG - TIG - SAW	A5.9 ER317L	EN ISO 14343-A 18 15 3 L	0.010	18.8	13.6	3.50	1.30	0.42	0.020	0.015	0.04	0.12	<0.50	>550	>430	>35	55 (+20°C)
		G-TECH 317L	SMAW	A5.4 E317L-16	EN ISO 3581-A E 19 13 4 N LR 32	0.025	18.5	12.5	3.30	1.25	0.90	0.020	0.015	0.12	0.10	<0.50	>560	>440	>35	>80 (+20°C)
		DAIKOFCW 317 [2]	FCAW	A5.22 E317LT0-1/4	EN ISO 17633-A TZ 19 13 4 L R C1/M21 3	0.030	19.1	12.6	3.50	1.10	0.60	0.020	0.010	-	-	<0.50	620	490	35	50 (0°C)
		DAIKOSTRIP 317	STRIP	A5.9 EQ317L	EN ISO 14343-A 19 13 4 L	0.020	19.0	14.0	3.60	1.50	0.40	0.020	0.020	-	0.20	<0.50	-	-	-	-
318	These consumables are used to weld Ti or Nb stabilized grades of Mo bearing austenitic stainless steels. It is also used for depositing corrosion resistance overlays and valve seat inlays on medium carbon alloy steel.	**DAIKOW 318**	MIG - TIG - SAW	A5.9 ER318	EN ISO 14343-A 19 12 3 Nb	0.040	19.5	11.5	2.60	1.30	0.40	0.020	0.010	-	0.10	Nb=0.7	620	400	30	40 (-196°C)
		DAIKOW 318Si	MIG - TIG - SAW	A5.9 (ER318)	EN ISO 14343-A 19 12 3 Nb Si	0.030	19.0	11.5	2.60	1.30	0.75	0.020	0.010	-	0.10	Nb=0.7	620	400	30	40 (-196°C)
		G-TECH 318	SMAW	A5.4 E318-16	EN ISO 3581-A E 19 12 3 Nb R 32	0.050	19.0	11.5	2.60	1.00	0.90	0.020	0.020	-	-	Nb=0.7	>580	>420	>30	>70 (+20°C)
		G-TECH 318R	SMAW	A5.4 E318-17	EN ISO 3581-A E 19 12 3 Nb LR 12	0.030	19.0	12.0	2.20	0.90	0.75	0.020	0.020	-	-	Nb=0.4	>580	>420	>30	>70 (+20°C)
		DAIKOFCW 318P	FCAW	A5.22 NO AWS	EN ISO 17633-A 19 12 3 Nb P C1/M21 1	0.020	18.5	11.6	2.80	1.30	0.50	0.020	0.010	-	-	Nb=0.40	680	510	30	57 (0°C)
347	These Cr-Ni consumables are Nb-stabilized for welding steels that are stabilized with Ti or Nb. Nb it reduces intergranular corrosion under severe operation conditions. Also suitable for cladding as on mild steel after a 309 buffer layer. Service temperatures are typically -100°C to about 400°C.	**DAIKOW 347**	MIG - TIG - SAW	A5.9 ER347	EN ISO 14343-A 19 9 Nb	0.030	19.2	9.6	0.05	1.30	0.45	0.020	0.010	-	0.06	Nb=0.50	660	450	42	>100 (-50°C)
		DAIKOW 347Si	MIG - TIG	A5.9 ER347Si	EN ISO 14343-A 19 9 Nb Si	0.030	19.5	9.7	0.30	1.40	0.80	0.020	0.010	-	0.20	Nb=0.60	650	475	>35	>40 (-196°C)
		G-TECH 347R	SMAW	A5.4 E347-17	EN ISO 3581-A E 19 9 Nb R 12	0.030	18.5	10.5	0.02	0.55	0.75	0.010	0.020	-	0.03	Nb=0.35	>550	>350	>30	-
		DAIKOFCW 347	FCAW	A5.22 E347T0-1/4	EN ISO 17633-A T 19 9 Nb P C1/M21 3	0.030	18.8	10.3	-	1.20	0.45	0.025	0.005	-	-	Nb=0.70	610	415	>30	85 (0°C)
		DAIKOFCW 347P [3]	FCAW	A5.22 E347T1-1/4	EN ISO 17633-A T 19 9 Nb P C1/M21 2	0.030	18.70	10.4	-	1.30	0.60	0.020	0.005	-	-	Nb=0.60	620	430	>35	>80 (0°C)
		DAIKOSTRIP 347	STRIP	A5.9 EQ347	EN ISO 14343-A 19 9 Nb	0.020	20.00	10.5	0.20	1.80	0.40	<0.020	<0.020	-	<0.30	Nb=0.50	-	-	-	-
347H	High carbon Niobium stabilized stainless steel consumables for high temperature service. Typical applications include components used in chemical and petrochemical process plant and in power generation stations.	**DAIKOW 347H** [4]	MIG - TIG - SAW	A5.9 ER347	EN ISO 14343-A 19 9 Nb	0.055	19.30	9.6	0.06	1.45	0.35	0.020	0.010	-	0.09	Nb=0.65	660	450	42	120 (20°C)
		G-TECH 347HB	SMAW	A5.4 E347-15	EN ISO 3581-A E 19 9 Nb B 42	0.060	19.50	9.5	-	1.90	0.80	0.020	0.010	-	0.07	Nb=0.75	>580	>420	>30	>70 (+20°C)
		G-TECH 347H	SMAW	A5.4 E347-16	EN ISO 3581-A E 19 9 Nb R 32	0.050	19.50	10.5	-	1.10	0.90	0.020	0.010	-	0.07	Nb=0.50	>580	>420	>30	>60 (+20°C)

(2) = Also available all positional version
(3) = High Carbon version available upon request
(4) = High Ferrite version available upon request

continues >

AUSTENITIC STAINLESS STEEL

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION											MECHANICAL PROPERTIES			
						C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
309L	These consumables are mainly used under high dilution conditions, particularly dissimilar welds between stainless and CMn steels. Also overlays on CMn steel or low alloy steel and for joining clad plate. Other application is welding of similar metal joints (23Cr-12Ni type).	**DAIKOW 309L**	MIG - TIG - SAW	A5.9 ER309L	EN ISO 14343-A 23 12 L	0.015	23.5	13.0	-	1.70	0.50	0.015	0.005	-	0.15	<0.50	590	450	43	150 (+20°C)
		DAIKOW 309LSi	MIG - TIG	A5.9 ER309LSi	EN ISO 14343-A 23 12 L Si	0.015	23.5	13.0	-	1.70	0.80	0.015	0.005	-	0.15	<0.50	590	450	43	150 (+20°C)
		G-TECH 309LB	SMAW	A5.4 E309L-15	EN ISO 3581-A E 23 12 L B 42	0.030	23.5	13.1	-	1.20	0.30	0.020	0.010	-	0.10	<0.50	>560	>400	>34	70 (+20°C)
		G-TECH 309L	SMAW	A5.4 E309L-16	EN ISO 3581-A E 23 12 LR 32	0.03	23.40	13.2	-	0.80	0.60	0.020	0.010	-	0.10	<0.50	>560	>400	>32	47 (+20°C)
		G-TECH 309LR	SMAW	A5.4 E309L-17	EN ISO 3581-A E 23 12 LR 32	0.03	23.50	13.1	-	0.70	0.85	0.020	0.010	-	0.10	<0.50	>560	>400	>32	47 (+20°C)
		DAIKOFCW 309LP	FCAW	A5.22 E309LT1-1/4	EN ISO 17633-A T 23 12 L P C1/M21 1	0.02	23.20	12.6	-	0.80	0.40	0.020	0.010	-	0.15	<0.50	580	450	35	43 (-20°C)
		DAIKOFCW 309L	FCAW	A5.22 E309LT0-1/4	EN ISO 17633-A T 23 12 L R C1/M21 3	0.02	23.90	12.6	-	1.40	0.70	0.020	0.010	-	0.15	<0.50	700	540	30	42 (-20°C)
		DAIKOSTRIP 309L	STRIP	A5.9 EQ309L	EN ISO 14343-A 23 12 L	0.010	23.50	13.0	-	1.80	0.35	0.020	0.010	-	0.10	<0.50	-	-	-	-
309H	Product for high temperature applications. Suitable for dissimilar joints and for overlaying.	**DAIKOW 309H**	MIG - TIG - SAW	A5.9 ER309	EN ISO 14343-A 23 12 H	0.10	23.0	13.0	-	1.80	0.40	0.015	0.010	-	-	-	640	400	35	>80 (+20°C)
309LMo	These consumables are mainly used under high dilution conditions, particularly dissimilar welds between stainless and CMn steels. Also overlays on CMn steel or low alloy steel and for joining 316L clad plate. There are no comparable base materials.	**DAIKOW 309LMo**	MIG - TIG - SAW	A5.9 (ER309LMo)	EN ISO 14343-A 23 12 2 L	0.010	21.40	15.0	2.60	1.50	0.40	0.015	0.005	-	0.15	<0.50	630	465	37	>80 (+20°C)
		G-TECH 309LMoB	SMAW	A5.4 E309LMo-15	EN ISO 3581-A E 23 12 2 LB 42	0.030	24.0	13.0	2.50	1.80	0.80	0.015	0.020	-	0.15	<0.50	620	520	30	70 (+20°C)
		G-TECH 309LMo	SMAW	A5.4 E309LMo-16	EN ISO 3581-A 23 12 2 LR 32	0.03	23.50	12.5	2.50	0.80	0.60	0.015	0.020	-	0.15	<0.50	>550	>390	>32	50 (+20°C)
		G-TECH 309LMoR	SMAW	A5.4 E309LMo-17	EN ISO 3581-A 23 12 2 LR 32	0.03	23.50	12.5	2.50	0.80	0.60	0.015	0.020	-	0.15	<0.50	>650	>450	>30	48 (-20°C)
		DAIKOFCW 309LMoP	FCAW	A5.22 E309L-MoT1-1/4	EN ISO 17633-A T 23 12 2 L P C1/M21 1	0.03	22.50	12.5	2.30	0.90	0.60	0.020	0.010	-	0.15	<0.50	690	530	31	48 (-20°C)
		DAIKOFCW 309LMo	FCAW	A5.22 E309L-MoT0-1/4	EN ISO 17633-A T 23 12 2 L R C1/M21 3	0.02	23.20	12.7	2.30	1.40	0.70	0.020	0.010	-	0.15	<0.50	700	540	30	42 (-20°C)
		DAIKOSTRIP 309LMo	STRIP	A5.9 (EQ309LMo)	EN ISO 14343-A 23 12 2 L	0.020	20.50	13.5	2.90	1.80	0.20	0.020	0.015	-	0.20	<0.50	-	-	-	-
309LNb	These Cr-Ni consumables are Nb-stabilized and they are mainly used for overlays on CMn steel or low alloy steel, where a type 347 is required.	**G-TECH 309Nb**	SMAW	A5.4 E309Cb-16	EN ISO 3581-A 23 12 Nb R 32	0.030	23.0	12.5	-	1.50	0.50	0.020	0.010	-	0.10	Nb=0.80	650	460	34	-
		DAIKOSTRIP 309LNb	STRIP	A5.9 EQ309LNb	EN ISO 14343-A 23 12 L Nb	0.020	23.0	12.0	-	2.00	0.20	0.020	0.015	-	0.20	Nb=0.75	-	-	-	-
307	Mixed welding applications including the welding of CMn, stainless, hardenable and armour steels to themselves or each other. Resistant to hot cracking is provided by the high manganese content.	**DAIKOW 307**	TIG - SAW	A5.9 (ER307)	EN ISO 14343-A 18 8 Mn	0.085	17.7	8.0	0.25	7.0	0.50	0.020	0.010	-	0.25	<0.50	590	410	40	80 (-60°C)
		DAIKOW 307Si	MIG - TIG	A5.9 (ER307)	EN ISO 14343-A 18 8 Mn	0.085	17.7	8.0	0.25	7.0	0.85	0.020	0.010	-	0.25	<0.50	590	410	40	80 (-60°C)
		G-TECH 307B	SMAW	A5.4 E307-15	EN ISO 3581-A E 18 9 Mn Mo B 42	0.050	19.5	9.5	0.80	5.3	0.70	0.020	0.010	-	0.20	<0.50	>600	>400	>35	>80 (+20°C)
		G-TECH 307	SMAW	A5.4 E307-16	EN ISO 3581-A E 18 9 Mn Mo R 12	0.090	19.0	9.8	0.60	5.5	0.80	0.020	0.010	-	0.20	<0.50	>590	>380	>35	>70 (+20°C)
		G-TECH 307HR	SMAW	A5.4 E307-26	EN ISO 3581-A E 18 9 Mn R 73	0.070	19.5	9.1	-	6.0	0.80	0.020	0.010	-	0.20	<0.50	>580	>400	>35	>80 (+20°C)
		DAIKOFCW 307	FCAW	A5.22 (E307T0-1/4)	EN ISO 17633-A T 18 8 Mn R M21 3	0.070	19.2	8.1	-	6.4	0.60	0.020	0.008	-	-	<0.50	580	390	40	>45 (0°C)
312	This consumable is used to weld similar steels, medium and high carbon hardenable steels. This product has extreme tolerance to dilution and it is useful to weld unknown specification steels. Weld deposit is work hardenable and gives good wear resistance. Applications include tool steels, shafts, gear teeth, free-cutting steels, dissimilar alloy combinations, buffer layers, weld overlay, ...	**DAIKOW 312**	MIG - TIG - SAW	A5.9 ER312	EN ISO 14343-A 29 9	0.100	30.0	9.5	-	1.80	0.40	0.020	0.010	-	0.25	<0.50	780	630	10	27 (+20°C)
		G-TECH 312R	SMAW	A5.4 E312-17	EN ISO 3581-A E 29 9 R 12	0.110	28.5	10.0	-	0.70	1.10	0.020	0.010	-	0.20	<0.50	>700	>600	>22	>30 (+20°C)
		G-TECH 312	SMAW	A5.4 E312-16	EN ISO 3581-A E 29 9 R 32	0.090	29.0	10.0	-	1.00	1.15	0.020	0.010	-	0.20	<0.50	>700	>600	>22	>30 (+20°C)
		DAIKOFCW 312	FCAW	A5.22 E312T0-4	EN ISO 17633-A T 29 9 R M21 3	0.120	28.4	10.2	-	1.20	0.60	0.020	0.008	-	-	<0.50	740	580	>22	-

CREEP RESISTING STEELS

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION												MECHANICAL PROPERTIES			
						C	Mn	Si	P	S	Ni	Cr	Mo	V	Cu	W	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
0.5Mo	Designed for prolonged elevated temperature service up to about 450°C, especially in fabrication of vessel, pipework and valve bodies.	**DAIKOW Mo.B**	MIG - TIG	A5.28 ER70S-A1	EN ISO 14341-A G2 Mo	0.090	1.20	0.60	0.010	0.010	0.15	0.15	0.50	-	0.25	-	<0.50	640	530	>26	90 (-20°C)
		DAIKOWS Mo.B	SAW	A5.23 EA2 (1)	EN ISO 14171-A S 46 4 FB S2Mo	0.090	1.20	0.30	0.010	0.010	-	-	0.50	-	0.10	-	<0.50	>620	>450	>24	70 (-20°C)
		G-TECH Mo.B	SMAW	A5.5 E7018-A1	EN ISO 3580-A E Mo B 42 H5	0.060	0.80	0.60	0.015	0.010	0.05	-	0.50	--	0.05	-	<0.50	>680	>580	>22	90 (+20°C)
		DAIKOFCW Mo.B	FCAW	A5.36 E80T5-M21P8-A1	EN ISO 17632-A T 46 6 Mo B M 3	0.080	1.40	0.50	0.020	0.020	-	-	0.50	-	0.15	-	<0.50	>620	>470	>20	47 (-30°C)
1¼Cr ½Mo	1¼Cr- ½Mo consumables designed for prolonged elevated temperature service up to about 550°C, especially in steam generation power plants (piping, valve bodies, turbine casting, boiler superheaters...). Suitable for corrosion resistance to sulphur bearing crude oil at 250-450° C. Used in chemical and petro-chemical industries for resistance to hydrogen attack in fabrication of hydrocrackers, coal liquefaction plant and NH3 pressure vessel operating at up to 450° C. These consumables have low levels of tramp elements (Sn, As, Sb and P) providing a low Bruscato Factor (X< 12 ppm) for temper embrittlement resistant applications.	**DAIKOW 1CrMo**	MIG - TIG	A5.28 ER80S-B2	EN ISO 21952-A (CrMo 1 Si)	0.080	0.60	0.55	0.008	0.010	0.04	1.30	0.50	-	0.15	-	<0.50	>610	>500	>22	100 (+20°C)
		DAIKOW 1CrMoS	MIG - TIG	A5.28 ER80S-G	EN ISO 21952-A CrMo 1 Si	0.090	1.00	0.66	0.008	0.010	0.04	1.20	0.47	-	0.15	-	<0.50	>620	>510	>22	100 (+20°C)
		DAIKOWS 1CrMo	SAW	A5.23 EB2	EN ISO 24598-A S CrMo1	0.090	0.80	0.20	0.010	0.010	-	1.20	0.50	-	0.15	-	<0.50	>560	>450	>24	50 (-20°C)
		G-TECH 1CrMo (2)	SMAW	A5.5 E8018-B2	EN ISO 3580-A E Cr Mo 1 B 32	0.070	0.80	0.60	0.015	0.010	0.05	1.25	0.60	-	0.05	-	<0.50	>680	>580	>22	100 (+20°C)
		DAIKOFCW 1CrMoB (3)	FCAW	A5.36 E80T5-M21PY-B2	EN ISO 17632-A CrMo1 B M 3	0.060	1.10	0.45	0.020	0.020	-	1.20	0.50	-	0.15	-	<0.50	>610	>460	>18	47 (+20°C)
		DAIKOMCW 1CrMo	FCAW	A5.36 E80T15-M21PY-B2-H4	EN ISO 17632-A T CrMo1 M M 2	0.060	1.10	0.40	0.020	0.020	-	1.20	0.50	-	0.15	-	<0.50	>620	>460	>18	47 (+20°C)
CrMoV	1¼Cr-1Mo-¼V consumables used for welding high temperature steels of similar composition. These alloys provide good creep rupture properties up to about 580°C. Widely used in valve casings and steam turbines, boilers, pressure vessels and in the power generation and petrochemical industries.	**G-TEH 1CrMoV**	SMAW	A5.5 E9018-G	EN ISO 3580-A ECrMoV1 B 32	0.070	0.85	0.30	0.010	0.010	-	1.20	1.10	0.20	-	-	<0.50	>780	>730	>18	60 (+20°C)
		DAIKOFCW 1CrMoV	FCAW	A5.36 E91T1-C1(M21)PZ-G	-	0.090	0.80	0.30	0.100	0.10	0.10	1.30	1.10	0.25	0.10	-	<0.50	>640	>540	>18	60 (+20°C)
2¼Cr 1Mo	2¼Cr-1Mo consumables designed for prolonged elevated temperature service up to about 600°C, especially in steam generation power plants (piping, valve bodies, turbine casting, boiler superheaters...). Suitable for corrosion resistance to sulphur bearing crude oil at 250-450° C. Used in chemical and petro-chemical industries for resistance to hydrogen attack in fabrication of hydrocrackers, coal liquefaction plant and NH3 pressure vessel operating at up to 450° C.	**DAIKOW 2CrMo**	MIG - TIG	A5.28 ER90S-B3	EN ISO 21952-A CrMo 2 Si	0.080	0.60	0.50	0.010	0.010	0.08	2.40	0.80	-	0.15	-	<0.50	>630	>530	>21	150 (+20°C)
		DAIKOW 2CrMoS	MIG - TIG	A5.28 ER90S-G	EN ISO 21952-A CrMo 2 Si	0.090	1.00	0.70	0.010	0.010	0.08	2.50	0.90	-	0.15	-	<0.50	>640	>540	>21	150 (+20°C)
		DAIKOWS 2CrMo	SAW	A5.23 EB3	EN ISO 14171-A S CrMo2 FB	0.080	0.70	0.20	0.010	0.010	-	2.20	1.00	-	0.15	-	<0.50	>550	>380	>24	50 (-20°C)
		G-TECH 2CrMo (2)	SMAW	A5.5 E9018-B3	EN ISO 3580-A E Cr Mo 2 B 32	0.070	0.80	0.60	0.015	0.010	0.05	2.25	1.00	-	0.05	-	<0.50	>700	>520	>18	>80 (+20°C)
		DAIKOFCW 2CrMoB	FCAW	A5.36 E90T5-M21PY-B3	EN ISO 17632-A CrMo2 B M 4	0.070	1.10	0.40	0.020	0.020	-	2.20	1.00	-	0.10	-	<0.50	>640	>550	>17	47 (-20°C)
5CrMo	5%Cr-0,5%Mo consumables designed for prolonged elevated temperature service up to about 600°C, especially in oil refineries (piping, heat exchangers, pressure vessels, boiler superheaters...).	**DAIKOW 5CrMo**	MIG - TIG	A5.28 ER80S-B6	EN ISO 21952-A CrMo 5 Si	0.080	0.60	0.40	0.010	0.010	0.05	5.50	0.60	-	0.20	-	<0.50	>650	>550	>21	50 (-20°C)
		DAIKOWS 5CrMo	SAW	A5.23 EB6	EN ISO 24598-A S CrMo5	0.080	0.50	0.40	0.010	0.010	-	5.50	0.55	-	0.15	-	<0.50	>630	>520	>20	80 (+20°C)
		G-TECH 5CrMo	SMAW	A5.5 E8015-B6/E8016-B6	EN ISO 3580-A E Cr Mo 5 B 42	0.060	0.80	0.50	0.015	0.010	0.05	5.00	0.50	-	0.05	-	<0.50	>620	>460	>19	>130 (+20°C)
		DAIKOFCW 5CrMo	FCAW	A5.29 E81T1-B6C/M	EN ISO 17634-B T55T1-1C/M - 5CM	0.070	0.80	0.30	0.010	0.010	0.01	5.00	0.50	-	0.05	-	<0.50	>680	>590	>20	55 (+20°C)
9CrMo	9%Cr-1%Mo consumables designed for prolonged elevated temperature service up to about 600°C, especially in superheated steam, hot hydrogen gas and high sulphur crude oil. Used for pressure vessel, heat exchanger and piping in oil & gas industries and power plant.	**DAIKOW 9CrMo**	MIG - TIG	A5.28 ER80S-B8	EN ISO 21952-A CrMo 9 Si	0.070	0.60	0.50	0.015	0.010	0.10	9.00	1.00	-	0.10	-	<0.50	>710	>590	>23	40 (-20°C)
		DAIKOWS 9CrMo	SAW	A5.23 EB8	EN ISO 24598-A S CrMo9	0.070	0.50	0.20	0.010	0.010	-	9.00	1.00	-	0.15	-	<0.50	>680	>550	>21	>50 (+20°C)
		G-TECH 9CrMo	SMAW	A5.5 E8015-B8	EN ISO 3580-A E Cr Mo 9 B 42	0.060	0.70	0.45	0.015	0.010	0.05	9.10	1.10	-	0.05	-	<0.50	>600	>500	>19	>50 (+20°C)
		DAIKOFCW 9CrMo	FCAW	A5.29 E81T1-B8	EN ISO 17634-B T55T1-1C/M-9C1M	0.080	0.80	0.30	0.010	0.010	0.30	9.00	1.00	-	0.05	-	<0.50	>630	>490	>22	35 (+20°C)

(1) = Also available EA3 and EA4

(2) = Also available "SX" version with very low X-factor

(3) = Also available rutil type FCW 1CrMo

continues >

CREEP RESISTING STEELS

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION													MECHANICAL PROPERTIES			
						C	Mn	Si	P	S	Ni	Cr	Mo	V	Cu	W		Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
9CrMoV	9%Cr-1%Mo consumables with small additions of Nb, V and N, designed to weld equivalent type 91 for high integrity structural service at elevated temperature, especially in power generation plants and oil refineries (main steam piping, headers, turbine casings...)	**DAIKOW 9CrMoV**	MIG - TIG	A5.28 ER90S-B9	EN ISO 21952-A W CrMo 9 1 Si	0.090	0.50	0.30	0.015	0.010	0.10	9.00	1.00	0.20	0.10	-	0.07	N=0.05	>760	>680	>20	30 (-20°C)
		DAIKOWS 9CrMoV	SAW	A5.23 EB9	EN ISO 24598-A S CrMo91	0.100	0.60	0.20	0.005	0.003	0.60	8.80	0.95	0.20	0.04	-	0.06	N=0.04	>750	>670	>20	40 (-20°C)
		G-TECH 9CrMoV (1)	SMAW	A5.5 E9018-B91	EN ISO 3580-A E Cr Mo 91 B 42 H5	0.090	0.60	0.30	0.015	0.010	0.60	9.50	1.00	0.20	0.20	-	0.05	N=0.04	>770	>640	>22	65 (+20°C)
		DAIKOFCW 9CrMoV (2)	FCAW	A5.29 E91T1-B9	EN ISO 17634-B T69T1-1C/M-9C1MV	0.100	0.80	0.30	0.010	0.010	0.50	9.00	1.00	0.20	0.05	-	0.05	N=0.05	>780	>650	>20	25 (+20°C)
12CrMoV	12%Cr creep resisting steel also with nominally 1%Mo-0.5%W-0.3%V. The matching base material is generically called X20.	**DAIKOW 12CRMoV**	TIG	-	EN ISO 21952-A: WCRMoWV12SI	0.2	0.60	0.60	0.010	0.005	0.60	11	1.00	0.30	-	0.5	-	-	750	600	20	50(+20°C)
		G-TECH 12CrMoV	SMAW	-	EN ISO 3580-A E Cr Mo W V12 B 3 2 H5	0.2	0.80	0.25	0.015	0.010	0.5	11	1	0.30	-	0.5	-	-	750	550	24	40 (+20°C)

(1) = Also available "SX" version with very low X-factor
(2) = Metal Cored version available upon request

HIGH TEMPERATURE ALLOYS

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION													MECHANICAL PROPERTIES			
						C	Mn	Fe	Mo	Si	Cu	Ni	Co	Ti	Cr	Nb	W	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
253MA	Designed to match equivalent alloys with good hot strength coupled with excellent resistance to oxidation up to about 1100°C.	**DAIKOW 253MA**	MIG - TIG	NO AWS	EN ISO 14343-A 21 10 N	0.07	0.6	Bal	0,05	1.6	0.10	10.2	-	-	21	-	-	N-0.15	680	440	38	>80 (+20°C)
		G-TECH 253MA	SMAW	NO AWS	-	0.06	0.80	Bal	0.10	1.50	0.20	10.3	-	-	22.00	-	-	N=0.15	>700	>540	38	-
254 SMO®	This electrode deposits weld metal that closely matches the composition of equivalent 6%Mo superaustenitic parent material, usually castings, and is used only when post weld solution annealing is applied.	**G-TECH 20.18.6CuR**	SMAW	NO AWS	-	0.03	0.80	Bal.	6.80	0.80	0.70	18.50	-	-	20.50	-	-	-	>550	>300	36	-
800 / 800H	These consumables are designed to match composition and properties of alloy 800. These alloys are used for their resistance to corrosion, thermal fatigue and shock at temperatures up to 1000°C. Typical applications include radiant tubes, reformer furnace outlet manifolds, pyrolysis furnace tubes in the petrochemical industry and nuclear engineering industries.	**DAIKOW 21.33MnNb**	MIG - TIG - SAW	NO AWS	W. Nr. (1.4850)	0.15	4.30	Bal.	0.30	0.50	0.10	33.00	-	0.15	21.00	1.00	-	-	>620	>410	27	40 (+20°C)
		G-TECH 800Nb	SMAW	NO AWS	EN ISO 3581-A EZ 21 32 Mn Nb B 32	0.10	2.10	Bal.	0.40	0.30	0.15	32.00	-	-	21.00	-	-	-	>590	>390	35	50 (+20°C)
18-37 (HT-HU)	Product for welding and cladding of heat resistant steels and similar alloyed steel casts. Applications up ton 950°C.	**G-TECH 330H**	SMAW	AWS A5.4 (E330-15)	EN ISO 3581-A EZ 18 36 Nb B 32	0.45	1.50	Bal.	0.40	0.40	-	38.00	-	-	17.50	-	-	-	>750	>500	12	-
4830	Product for welding and cladding of heat resistant fully austenitic steels and similar alloyed steel casts- Applications up ton 1000°C.	**G-TECH 25.24Nb**	SMAW	NO AWS	EN ISO 3581-A ZE 25 24 Nb 32	0.25	0.80	Bal.	-	0.30	-	24.00	-	-	25.00	1.20	-	-	>590	>440	11	-
HP10Cb	Product designed to deposit weld metal which matches the composition of similar casting. It is used at temperature up to 1100°C. The principal applications are pyrolysis coils and reformer tubes in the petrochemical industry.	**G-TECH 25.35Nb**	SMAW	NO AWS	EN ISO 3581-A EZ 25 35 Nb B 32	0.08	3.40	Bal.	0.30	0.40	0.50	35.00	-	-	26.00	0.80	-	-	>610	>400	34	-
HP40Nb	These consumables are designed to match heat resistant cast alloys with 0.4%C-25%Cr-35%Ni-Nb (typical service temperature 900-1100°C). They are also suitable for high carbon Cr-Ni alloys such as HK40, HT40 and IN519. High levels of Cr and Ni provide good resistance to oxidation and carburization. The principal applications are pyrolysis coils and reformer tubes in the petrochemical industry.	**DAIKOW 25.35.4CNb**	MIG - TIG - SAW	NO AWS	W. Nr. (1.4853)	0.40	1.70	Bal.	0.30	1.10	0.15	35.00	-	0.10	26.00	1.30	-	-	>750	>500	13	-
		G-TECH 25.35.4CNb	SMAW	NO AWS	-	0.40	1.50	Bal.	0.20	0.50	0.10	35.00	-	0.08	26.00	1.20	-	-	>650	>480	15	-

continues >

HIGH TEMPERATURE ALLOYS

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION												MECHANICAL PROPERTIES			
						C	Mn	Fe	Mo	Si	Cu	Ni	Co	Ti	Cr	Nb	W	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
35.45	These consumables are designed to match heat resistant cast alloys with 35%Cr-45%Ni-1%Nb. They have great oxidation and carburization resistance for applications up to 1150°C. The principal applications are pyrolysis coils and reformer tubes in the petrochemical industry.	**DAIKOW 35.45Nb**	MIG - TIG	NO AWS	W. Nr. (1.4889)	0.43	1.00	Bal.	0.10	1.20	-	46.00	-	0.10	36.00	1.00	-	-	>680	540	3	-
		G-TECH 35.45Nb	SMAW	NO AWS	EN ISO 3581-A EZ 35 45 Nb B 32	0.45	0.90	Bal.	0.05	1.20	-	46.00	-	0.02	35.00	0.90	-	-	>730	>540	6	-
22H	These electrodes are designed to match similar high carbon cast alloys type 22H. Excellent hot strength and oxidation resistance at typical service temperatures of 950-1250°C. Applications include highly stressed furnace parts, sintering and calcining muffles, cement kiln components resistant to hot abrasion, radiant tubes and pyrolysis coils.	**G-TECH 50WCo**	SMAW	NO AWS	-	0.50	0.60	Bal.	0.05	0.50	-	51.00	14.00	-	28.00	-	4.60	-	>820	>600	6	-
		G-TECH 26.50.4W	SMAW	NO AWS	W. Nr. (2.4879)	0.50	1.20	Bal.	-	0.80	-	50.00	-	-	27.00	-	5.00	-	>760	>550	6	-

CRYOGENIC STEELS

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION										MECHANICAL PROPERTIES			
						C	Mn	Si	P	S	Ni	Cr	Mo	Cu	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
1Ni	Consumables designed for welding low-alloy steels with 1% Ni and fine grain steel as well as for low temperature applications. Suitable for the construction of offshore platforms, pressure vessels and pipelines and also for welding higher strength steel structures where PWHT is impracticable but toughness and crack resistance are required.	**DAIKOW 1Ni**	MIG – TIG	A5.28 ER80S-Ni1	EN ISO 14341-A G 46 5 M21 3Ni1	0.10	1.10	0.60	0.010	0.010	1.00	-	0.02	0.12	<0.50	>590	>500	>25	120 (-50°C)
		DAIKOW 1Ni	SAW	A5.23 ENi1	EN ISO 14171-A S2Ni1	0.10	1.00	0.15	0.010	0.010	1.00	-	0.03	0.15	<0.50	>580	>500	>24	50 (-60°C)
		G-TECH 1Ni	SMAW	A5.5 E8018-C3	EN ISO 2560-A E 46 6 1 NiMo B 42 H5	0.05	1.10	0.60	0.010	0.010	1.00	-	0.30	0.10	-	>600	>500	>24	50 (-60°C)
		DAIKOFCW 1NiB	FCAW	A5.29 E80T5-Ni1	EN ISO 17632-A T 46 6 1Ni B M 3	0.06	1.30	0.50	0.020	0.020	0.90	-	0.04	0.10	-	>580	>500	>22	47 (-50°C)
		DAIKOFCW 1Ni	FCAW	A5.36 E81T1-M21A8-Ni1-H4	EN ISO 17632-A T 50 6 1Ni P M 1 H5	0.06	1.30	0.45	0.020	0.020	1.00	-	0.05	0.15	-	>570	>490	>22	50 (-50°C)
		DAIKOMCW 1Ni	FCAW	A5.36 E80T15-M21A8-Ni1-H4	EN ISO 17632-A T 50 6 1Ni M M 1	0.06	1.30	0.50	0.020	0.020	1.00	-	0.03	0.15	-	>560	>470	24	47 (-50°C)
2Ni	Consumables designed for welding low-alloy steels for low temperature applications. Typically, they are used for welding 2.5 nickel steels and other materials requiring good toughness at temperatures as low as – 60°C.	**DAIKOW 2Ni**	MIG – TIG	A5.28 ER80S-Ni2	EN ISO 14341-A G 50 6 M23 2Ni2	0.09	1.10	0.55	0.007	0.008	2.10	-	0.02	0.15	<0.50	>620	>520	>25	100 (-60°C)
		DAIKOW 2Ni	SAW	A5.23 ENi2	EN ISO 14171-A S2Ni2	0.10	1.00	0.15	0.010	0.010	2.25	-	0.10	0.15	<0.50	>610	>510	>24	65 (-60°C)
		G-TECH 2Ni	SMAW	A5.5 E8018-C1	EN ISO 2560-A E 46 6 2Ni B 42 H5	0.06	1.10	0.60	0.010	0.010	2.20	-	0.05	0.10	-	>630	>460	>20	47 (-75°C)
3Ni	Consumables designed for welding low-alloy steels with 3,5% Ni. Suitable for the construction of cryogenic plant and pipework in petrochemical industry and for general low temperature applications down to -80°C.	**DAIKOW 3Ni**	MIG – TIG	A5.28 ER80S-Ni3	EN ISO 14341-A G 57P 7 M22 SN71	0.10	1.00	0.60	0.010	0.010	3.50	-	0.03	0.12	<0.50	>620	>540	>24	50 (-60°C)
		DAIKOW 3Ni	SAW	A5.23 ENi3	EN ISO 14171-A S2Ni3	0.10	1.00	0.15	0.010	0.010	3.50	-	0.02	0.15	<0.50	>630	>550	>24	50 (-60°C)
		G-TECH 3Ni	SMAW	A5.5 E8018-C2 H4	EN ISO 2560-A E 50 6 3Ni B 42	0.08	1.10	0.70	0.010	0.010	3.20	-	0.02	0.10	-	>680	>600	>20	27 (-75°C)
		DAIKOFCW 3NiB	FCAW	A5.29 E81T5-G H4	EN ISO 17632-A T 46 10 3Ni B M 3 H5	0.04	0.70	0.30	0.020	0.020	3.30	-	-	0.10	-	560	480	29	100 (-100°C)

HIGH STRENGTH STEELS

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION										MECHANICAL PROPERTIES			
						C	Mn	Si	P	S	Ni	Cr	Mo	Cu	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
80-90ksi	High strength low alloy steels with improved elevated temperature performance over that of CMn steels. Used for the fabrication of vessel and associated pipework demanding creep rupture strength and ductility up to about 450°C. Good toughness at low temperatures.	**DAIKOW D2**	MIG - TIG	A5.28 ER80S-D2[1]	EN ISO 14341-A G 4Mo	0.08	1.90	0.70	0.010	0.010	0.05	0.09	0.45	0.12	-	>660	>540	>23	80 (-20°C)
		DAIKOWS MnMo	SAW	A5.23 EA3	EN ISO 14171-A-S4Mo	0.07	1.60	0.60	0.010	0.010	0.06	0.08	0.40	0.15	-	>640	>510	>22	70 (-20°C)
		G-TECH 80G	SMAW	A5.5 E8018-G	EN ISO 18275-A E 50 6 Mn1NiB42	0.06	1.70	0.60	0.010	0.010	0.60	0.03	0.07	0.040	-	>590	>510	>23	60 (-20°C)
		G-TECH 90G	SMAW	A5.5 E9018-G	EN ISO 18275-A E 62 4 1NiMoB42 H5	0.07	1.10	0.70	0.010	0.010	0.70	0.05	0.40	0.40	-	>600	>500	>22	50 (-40°C)
100ksi	Consumables designed for welding high yield strength steels (with tensile strength over 690 MPa). DAIKO NiMo has good impact strength at low temperature and it is suitable for high strength low alloy (HSLA) construtions (cranes, earth moving equipment etc.). Applications include also offshore fabrication, chemical and petrochemical industry.	**DAIKOW NiMo**	MIG - TIG	A5.28 ER100S-G	EN ISO 16834-A G 55 5 Mn3NiCrMo	0.09	1.37	0.70	0.010	0.007	0.55	0.40	0.22	0.19	-	>720	>630	>20	50 (-50°C)
		DAIKOWS S3NiMo	SAW	A5.23 EF3	EN ISO 26304-A S3Ni1Mo	0.11	1.80	0.20	0.005	0.002	0.95	0.03	0.52	0.30	-	>680	>580	>22	80 (-40°C)
		G-TECH 109	SMAW	A5.5 E10018-G	EN ISO 18275-A E 62 5 1,5NiMo B 42	0.08	1.30	0.60	0.010	0.010	1.30	0.05	0.40	0.25	-	>720	>620	>18	47 (-50°C)
110ksi	These products are suitable to join high strength Ni-Cr-Mo low alloy steels requiring 760 MPa minimum tensile strength in the weld deposit . Typical applications include construction (HSLA), pressure vessels and pipes.	**DAIKOW 96**	MIG - TIG	A5.28 ER110S-G	EN ISO 16834-A G 69 4 Mn3Ni1CrMo	0.08	1.60	0.60	0.010	0.015	1.50	0.27	0.22	0.17	-	>790	>710	>18	70 (-40°C)
		DAIKOW 700	SAW	A5.23 EG		0.07	1.70	0.50	0.005	0.004	1.60	0.15	0.25	0.20	-	>760	>690	>18	60 (-40°C)
		G-TECH 96	SMAW	A5.5 E11018-M	EN ISO 18275-A E 69 5 Mn2NiMo B 42 H5	0.06	1.50	0.30	0.010	0.010	2.20	0.025	0.40	0.30	-	>760	>690	>20	47 (-50°C)
		DAIKOFCW 115B	FCAW	A5.36 E110T5	EN ISO 18276-A T 69 6 Mn2NiCrMo B M 3 H5	0.06	1.40	0.40	0.020	0.020	2.20	-	0.40	0.10	-	>840	>690	>17	47 (-50°C)
		DAIKOMCW 115	FCAW	A5.36 E111T15	EN ISO 18276-A T 69 6 Mn2NiCrMo M M 2 1 H5	0.07	1.40	0.40	0.020	0.020	2.20	-	0.40	0.15	-	>800	>670	>17	47 (-60°C)
		DAIKOFCW 97	FCAW	A5.29 E111T1-K3MJ	-	0.07	2.00	0.40	0.010	0.010	2.00	-	0.40	0.15	-	870	740	19	>47 (-20°C)
		DAIKOFCW 97S	FCAW	A5.29 E111T1-GM	EN ISO 18276-A T 69 4 Z P M 2 H5	0.07	1.86	0.31	0.007	0.006	2.49	-	0.16	-	-	900	750	21	>47 (-40°C)
120ksi	Consumable designed for those applications requiring 120 Ksi minimum tensile strength and good charpy v-notch toughness, such as when welding HY-80, HY-100, Weldox 900, S890QL, S960Q. These materials are used in lifting and handling machines, bridges, tanks, transport, shipbuilding, railway sector, mines, frames, crane fabrication, trailer construction, and other structural applications involving higher strength materials.	**DAIKOW 120**	MIG - TIG	A5.28 ER120S-G	EN ISO 16834-A G 89 Mn4Ni2.5CrMo	0.11	1.90	0.80	0.010	0.010	2.40	0.60	0.60	0.15	-	>980	>890	>18	100 (-60°C)
		G-TECH 120	SMAW	A5.5 E12018-G	EN ISO 18275-A E 79 5 Mn2Ni1CrMo B 42 H5	0.09	1.80	0.50			2.30	0.90	0.50		-	>900	>800	>18	60 (-50°C)
		DAIKOFCW 120B	FCAW	A5.36 E120T5	EN ISO 18276-A T 89 4 Mn2Ni1CrMo B M 4	0.06	1.40	0.40	0.020	0.020	2.20	0.40	0.40	0.15	-	>990	>890	>15	47 (-50°C)
		DAIKOMCW 120	FCAW	A5.36 E120T15	EN ISO 18276-A T 89 4 Mn2Ni1CrMo M M 2	0.06	1.60	0.50	0.020	0.020	2.20	1.00	0.40	0.15	-	>980	>880	>15	47 (-50°C)
130ksi	Consumables designed for welding similar base metal requiring high yield strength (over 900 MPa).	**DAIKOW 4130**	MIG - TIG - SAW	NO AWS	W. Nr. (1.7218)	0.30	0.50	0.30	0.015	0.010	0.01	1.00	0.20	0.15	-	>1150	>1100	-	-

(1) = Also available ER90S-D2

ALUMINUM ALLOYS

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION										MECHANICAL PROPERTIES			
						Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
Al	Consumables suitable for welding aluminum and pure aluminum alloys.	**DAIKOW Al 99,5Ti**	MIG - TIG	A5.10 ER1450	EN ISO 18273 S Al 1450	0.25	0.40	0.05	0.03	0.03	-	0.07	0.03	Bal.	<0.15	>85	>35	35	-
		DAIKOW Al 99,7	MIG - TIG	A5.10 ER1070	EN ISO 18273 S Al 1070	0.20	0.25	0.04	0.03	0.03	.	0.04	0.03	Bal.	<0.15	>80	>35	30	-
		DAIKOW Al 99,8	MIG - TIG	A5.10 ER1080	EN ISO 18273 S Al 1080 A	0.15	0.15	0.03	0.02	0.02	-	0.06	0.02	Bal.	<0.15	>85	>35	30	-
		G-TECH 99,8	SMAW	A5.3 E1080	DIN 1732 EL-Al 99,8	0.10	0.10	0.02	-	-	-	-	-	Bal.	<0.15	>80	>50	25	-
		DAIKOW Al 99Cu	MIG - TIG	A5.10 ER1100	EN ISO 1873 S Al 1100	0.40	0.45	0.15	0.05	-	-	0.10	-	Bal.	<0.15	>85	>38	30	-
AlSi	Consumables for welding of Al-Mg-Si alloys. Applications include general constructions and components for the automotive industry.	**DAIKOW AlSi5**	MIG - TIG	A5.10 ER4043	EN ISO 18273 S Al 4043 A	4.90	0.10	0.037	0.01	0.003	-	0.01	0.013	Bal.	<0.15	>120	>60	15	-
		G-TECH 605	SMAW	A5.3 E4043	EN ISO 18273 E AL 4043	5.25	0.31	0.035	0.04	0.04		0.08		Bal.	<0.15	>120	>90	15	-
		DAIKOW AlSi12	MIG - TIG	A5.10 ER4047	EN ISO 18273 S Al 4047 A	11.70	0.13	0.006	0.05	0.006	-	0.01	0.02	Bal.	<0.15	>125	>70	5	-
		G-TECH 601	SMAW	A5.3 E4047	EN ISO 18273 E AL 4047	11.8	0.45	0.04	0.04	0.04	-	0.08		Bal.	<0.15	>195	>75	14	-
AlMg	Consumables suitable for welding aluminum magnesium alloys used in automotive industry, general structural fabrication and ship building.	**DAIKOW AlMg3**	MIG - TIG	A5.10 ER5754	EN ISO 18273 S Al 5754	0.40	0.40	0.05	0.50	2.90	0.30	0.20	0.10	Bal.	<0.15	>190	>80	20	-
		DAIKOW AlMg5	MIG - TIG	A5.10 ER5356	EN ISO 18273 S Al 5356	0.05	0.11	0.01	0.16	5.10	0.12	0.01	0.065	Bal.	<0.15	>250	>115	17	-
AlMgMn	Consumables for welding of Al-Mg, Al-Mg-Mn alloys up to 5% Mg. These Aluminium alloys having an high tensile and corrosion strength, are suitable to use in shipbuilding, railway and automotive industry, cryogenic tanks and pressure vessel fabrication	**DAIKOW AlMg4,5Mn**	MIG - TIG	A5.10 ER5183	EN ISO 18273 S Al 5183	0.05	0.11	0.01	0.65	5.10	0.06	0.01	0.06	Bal.	<0.15	>270	>135	15	-
		DAIKOW AlMg4,5MnZr	MIG - TIG	A5.10 ER5087	EN ISO 18273 S Al 5087	0.05	0.20	0.02	0.80	5.10	0.06	0.01	0.06	Bal.	Zr<0.20	>280	>150	15	-
AlMn	Product designed for welding forged and cast aluminium-magnesium alloys and aluminium-manganese alloys.	**G-TECH AlMn**	SMAW	A5.3 E3003	EN ISO 18273 E Al 3103	0.02	-	-	1.20	0.20	-	-	-	Bal.	<0.15	>100	>40	20	-

CAST IRON

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION											MECHANICAL PROPERTIES			
						C	Mn	Si	P	S	Fe	Ni	Mo	Cu	Al	Other	TS [MPa]	YS [MPa]	EL%	Hardnes
Ni Cl	Consumables used for welding and repair grey cast iron, malleable cast iron and cast steel.Suitable to join these cast irons to steels, monels, copper alloys, etc. ... Also suitable for buffer layer before welding with NiFe consumables.	DAIKOW 99	MIG - TIG	A5.15 ERNi-Cl	EN ISO 18274 S Ni 2061	1.00	0.10	0.20	-	0.02	1.80	Bal.	-	-	-	<1.0	>350	>300	15	170 HB
		G-TECH 99	SMAW	A5.15 Eni-Cl	EN ISO 1071 E C Ni-Cl 1	1.00	0.20	0.70	-	0.02	3.00	Bal.	-	-	-	<1.0	>320	>270	18	170 HB
		G-TECH 324	SMAW	A5.15 ENi-Cl	EN ISO 1071 E C Ni-Cl 1	1.10	0.20	0.60	-	0.02	1.50	Bal.	-	-	-	<1.0	>440	>300	20	170 HB
NiFe-Cl	Consumables used for welding cast iron, joining steel with cast iron and to repair casting.	DAIKOW 55	MIG - TIG	A5.15 ERNiFe-Cl	-	0.03	0.30	0.20	0.013	0.01	Bal.	55.0	-	0.02	-	<1.0	>530	>300	22	180 HB
		G-TECH 55	SMAW	A5.15 ENiFe-Cl	EN ISO 1071 E C NiFe-Cl	1.20	0.30	0.70	-	0.01	Bal.	53.0	-	-	-	<1.0	>430	>230	8	190 HB
		G-TECH 323	SMAW	A5.15 ENiFe-Cl	EN ISO 1071 E C NiFe-Cl 1	1.00	0.80	0.70	-	0.02	Bal.	53.0	-	-	-	<1.0	>430	>250	8	190 HB
		G-TECH 323S	SMAW	A5.15 ENiFe-Cl	EN ISO 1071 E C NiFe-Cl 1	1.00	0.90	0.90	-	0.02	Bal.	53.0	-	-	-	<1.0	>480	>340	10	200 HB
		DAIKOFCW 321	FCAW	A5.15 - NO AWS	DIN 17006 Ni 36	0.10	2.50	0.40	-	0.02	Bal.	36.0	-	-	-	<1.0	>420	>220	12	210 HB
		DAIKOFCW 345	FCAW	A5.15 - NO AWS	EN ISO 1071 TC NiFe T3-Cl	0.75	4.00	0.50	-	0.02	Bal.	45.0	-	-	-	<1.0	550	340	16	200 HB
		DAIKOFCW 323S	FCAW	A5.15 - NO AWS	DIN 8555 -MF - NiFe 2	0.80	1.50	0.90	-	0.02	40.00	Bal.	-	-	-	<1.0	>490	>340	10	180 HB
NiFe-Cu	Special electrodes with Fe-Ni-Cu core for joining cast iron to steel and repairs on difficult to weld cast-iron.	G-TECH 330Cu	SMAW	A5.15 (E NiCu - B)	EN ISO 1071 E C NiCu 1	0.80	-	0.60	-	0.02	5.50	Bal.	-	29.00	-	<1.0	>390	>290	15	160 HB
		G-TECH 306Cu	SMAW	A5.15 (E NiFe - Cl)	EN ISO 1071 E NiFe - 1 3	0.80	0.60	0.60	-	0.02	Bal.	52.5	-	5.80	-	<1.0	>380	>260	12	190 HB
Bimetal	Bimetal Fe-Ni core wire electrode for joining cast-iron to steel.	G-TECH 305	SMAW	A5.15 ENiFe-Cl 1	EN ISO 1071 E C NiFe Cl 1	1.00	0.20	0.90	-	0.02	Bal.	53.0	-	-	-	<1.0	>430	>240	14	190 HB
Fe-V	Special electrode without Nickel for welding of cast iron with a colour matching deposit. Used for repair cast iron and as first layer before surfacing of cast iron.	G-TECH 301V	SMAW	A5.15 E S t	EN ISO 1071 E C Z 1	1.20	-	1.20	-	0.02	Bal.	-	-	-	-	V=10	-	-	6	230 HB

CARBON STEELS

FORMAT/ ALLOY	DESCRIPTION	PRODUCT	PRO-CESS	AWS	OTHER STANDARD	COMPOSITION													MECHANICAL PROPERTIES			
						C	Mn	Si	P	S	Ni	Cr	Mo	V	Cu	Ti	Zr	Al	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
WIRE-TIG	Solid wire / TIG rod for welding carbon and carbon-manganese steels with tensile strength up to 530 MPa. Used for the fabrication of vessel, pipework and for structural steel applications.	**DAIKOW SG1**	MIG TIG	A5.18 ER70S-3 A5.18 ER70S-3	EN ISO 14341-A G 42 4 M 21 2 Si1 EN ISO 636-A W 42 5 W 2 S i	0.08	1.21	0.50	0.010	0.010	-	0.02	-	-	0.04	-	-	-	-	550	440	32	60 (-40°c)
		DAIKOW SG2 HQ	MIG TIG	A5.18 ER70S-6 A5.18 ER70S-6	EN ISO 14341-A G 42 4 M 21 3 Si1 EN ISO 636 W 42 5 W 3 S i 1	0.06	1.47	0.82	0.013	0.014	-	0.03	-	-	0.03	-	-	-	-	560	460	30	60 (-40°c)
		DAIKOW SG3 HQ	MIG TIG	A5.18 ER70S-6 A5.18 ER70S-6	EN ISO 14341-A G 46 5 M 21 4 Si1 EN ISO 636 W 46 5 W 4 S i 1	0.07	1.64	0.95	0.010	0.015	-	0.03	-	-	0.05	-	-	-	-	600	500	26	50 (-50°C)
	Solid wire / TIG rod for welding of C-Mn steels on greasy, oxydized surface and surface destined to subsequent coating process.	**DAIKOW S2**	MIG TIG	A5.18 ER70S-2 A5.18 ER70S-2	EN ISO 14341-A G 42 3 M21 2Ti EN ISO 636 W 42 3 W 2 T i	0.06	1.10	0.50	0.012	0.012	-	0.01	-	-	0.15	0.10	0.09	0.10	-	520	440	28	70 (-20°C)
	Solid wire for welding thin, galvanised or electro-galvanised plates	**DAIKOW 107Ti**	MIG	A5.18 ER70S-G	EN ISO 14341-A G 42 2 M 21 Z	0.06	1.30	0.65	0.010	0.015	-	0.02	-	-	0.03	0.10	0.07	0.10	-	520	440	28	70 (-20°C)
FCW	Rutile tubolar flux cored wire for welding of C-Mn steels.	**DAIKOFCW 102R**	FCAW	A5.20 E71T1	EN ISO 17632-A T 46 4 P M 1 H5	0.06	1.30	0.50	0.010	0.010	-	0.03	-	-	0.10	-	-	-	-	>550	>460	>20	47 (-40°C)
	Rutile flux cored wire for welding of C-Mn steels.	**DAIKOFCW 102S**	FCAW	A5.20 E71T1	EN ISO 17632-A T 42 2 C/M 1 H5	0.04	1.30	0.68	0.010	0.012	-	-	-	-	-	-	-	-	-	>540	>460	>20	47 (-20°C)
	High quality rutile flux cored wire for welding of C-Mn steels.	**DAIKOFCW 102SP**	FCAW	A5.20 E71T1M	EN ISO 17632-A T 46 2 P M 1 H5	0.05	1.28	0.52	0.010	0.009	-	-	-	-	-	-	-	-	-	>540	>460	>20	47 (-20°C)
	Basic flux cored wire for welding of C-Mn steels.	**DAIKOFCW 107B**	FCAW	A5.36 E70T5	EN ISO 17632-A T 46 4 B M 3	0.08	1.30	0.40	0.010	0.009	-	0.04	-	-	0.02	-	-	-	-	>550	>460	>20	47 (-40°C)
	Tubolar metal cored wire for welding of C-Mn steels.	**DAIKOMCW 107**	FCAW	A5.36 E71T15	EN ISO 17632-A T 46 6 M M 1	0.04	1.40	0.60	0.007	0.009	0.01	0.03	-	-	0.12	-	-	-	-	>550	>460	>20	47 (-60°C)
	Metal cored wire for welding of C-Mn steels.	**DAIKOMCW 107S**	FCAW	A5.18 E70C-6M	EN ISO 17632-A T 42 4 M M 3 H5	0.05	1.60	0.60	0.015	0.011	-	-	-	-	-	-	-	-	-	>550	>450	>20	47 (-40°C)
	Low fume metal cored wire for welding of C-Mn steels.	**DAIKOMCW 107LF**	FCAW	A5.18 E70C-6M	EN ISO 17632-A T 42 4 M M 3 H5	0.03	1.70	0.85	0.010	0.010	-	-	-	-	-	-	-	-	-	>550	>450	>20	47 (-30°C)
	High quality metal cored wire for welding of C-Mn steels.	**DAIKOMCW 107SP**	FCAW	A5.18 E70C-6M	EN ISO 17632-A T 46 4 M M 1 H5	0.08	1.40	0.50	0.009	0.009	-	-	-	-	-	-	-	-	-	>550	>450	>20	47 (-40°C)
	Flux cored wire for welding of C-Mn steels without shielding gas (Open arc).	**DAIKOFCW 107OP**	FCAW	A5.20 E71T-GS	EN ISO 17632-A T 42 Z Z V N 1	0.26	0.90	0.50	0.016	0.014	-	-	-	-	-	-	-	2.05	-	>580	>460	>22	-

continues >

CARBON STEELS

FORMAT/ ALLOY	DESCRIPTION	PRODUCT	PROCESS	AWS	OTHER STANDARD	COMPOSITION													MECHANICAL PROPERTIES			
						C	Mn	Si	P	S	Ni	Cr	Mo	V	Cu	Ti	Zr	Al	Other	TS [MPa]	YS [MPa]	EL%	Impact [J]
SMAW	Cellulosic type electrode, for welding in all positions including the vertical-down position of pipelines grades API 5L X42, X52 and X56 (only 102C). Especially recommended for root passes. Good radiography quality.	**G-TECH 101C**	SMAW	A5.1 E6010	EN ISO 2560-A E 38 3 C 21	0.12	0.50	0.20	0.020	0.010		-	-	-	-	-	-	-	-	>470	>380	>25	50 (-30°C)
		G-TECH 102C	SMAW	A5.1 E7010-G	EN ISO 2560-A E 42 3 Z C 21	0.12	0.70	0.30	0.020	0.010	0.25	-	0.25	-	-	-	-	-	-	>550	>450	>25	47 (-30°C)
	Medium coated rutile-cellulosic type electrode for universal application of non-alloyed structural steel. All positional welding , including vertical-downward.	**G-TECH 101**	SMAW	A5.1 E6013	EN ISO 2560-A E 42 A RC 11	0.08	0.50	0.30	0.020	0.010	-	-	-	-	-	-	-	-	-	<510	>450	>24	47 (-30°C)
	Thick coating rutile electrode for universal application of non-alloyed structural steel and for esthetical beads.	**G-TECH 102**	SMAW	A5.1 E6013	EN ISO 2560-A E 42 0 RR 12	0.10	0.64	0.33	0.020	0.010	-	-	-	-	-	-	-	-	-	>520	>460	>25	47 (-20°C)
	Rutile electrode for welding of non-alloyed structural steel, in special for thin plates.	**G-TECH 103**	SMAW	A5.1 E6013	EN ISO 2560-A E 42 A RR 12	0.08	0.50	0.40	0.020	0.010	-	-	-	-	-	-	-	-	-	>510	>450	>22	47 (+20°C)
	Rutile high recovery electrode for welding carbon steels.	**G-TECH 102HR**	SMAW	A5.1 E7024	EN ISO 2560-A E 42 0 RR 73	0.09	1.00	0.70	0.020	0.010	-	-	-	-	-	-	-	-	-	>520	>470	>22	47 (0°C)
	Basic type electrode double coated for welding medium strength steels.Specially used for repairing and maintenance.	**G-TECH 107**	SMAW	A5.1 E7016	EN ISO 2560-A E 42 3 B 12	0.08	1.10	0.45	0.010	0.008	0.02	0.03	0.02	-	-	0.02	-	-	-	>550	>450	>25	>40 (-30°C)
	Basic type electrode (110% recovery) for welding structural steels highly stressed connections . Crack resistant, stable arc, slag easy to remove.	**G-TECH 107B**	SMAW	A5.1 E7018.1	EN ISO 2560-A E 42 4 B 42	0.08	1.08	0.55	0.016	0.008	0.02	0.04	0.02	-	-	0.02	-	-	-	>500	>450	>22	>47 (-40°C)
	Basic type electrode for welding highly stressed connections. Resistant to cold cracks, stable arc, slag easy to remove.	**G-TECH 108**	SMAW	A5.1 E7018	EN ISO 2560-A E 42 4 B 42	0.07	1.00	0.50	0.020	0.010	-	-	-	-	-	-	-		-	>540	>420	>25	>90 (-29°C)
	High recovery (150%) basic type electrode. Mainly used for fillet welding. Weld metal is crackfree and very tough. Smooth and clean welds, base metal without undercut.	**G-TECH 107HR**	SMAW	A5.1 E7028	EN ISO 2560-A E 42 2 B 83	0.07	1.20	0.50	0.020	0.010	-	-	-	-	-	-	-	-	-	>510	>420	>26	47 (-20°C)
SAW	Submerged arc welding wire suitable to join carbon steels for construction, pressure vessels, pipes, ship buildings.	**DAIKOWS S2**	SAW	A5.23 EM12k	EN ISO 14171-A S2	0.08	1.10	0.10	0.020	0.012	0.08	0.05	0.02	-	0.14	-	-	-	-	>510	>410	>29	55 (-40°C)
		DAIKOWS S2Si	SAW	A5.23 EM12k	EN ISO 14171-A S2Si	0.08	1.15	0.50	0.020	0.010	0.07	0.05	0.02	-	0.10	-	-	-	-	>510	>410	>29	60 (-40°C)
		DAIKOWS S3Si	SAW	A5.23 EH12k	EN ISO 14171-A S3Si	0.09	1.70	0.33	0.007	0.003	0.02	0.02	-	-	0.03	-	-	-	-	>580	>500	>29	68 (-40°C)
		DAIKOWS S4	SAW	A5.23 EH14	EN ISO S4	0.10	2.00	0.10	0.025	0.025	0.10	0.15	0.15	-	0.30	-	-	0.03	-	>590	>400	>22	27 (-20°C)
CORTEN	Consumables for weather resistant steel with low content of Cu,Cr, and Ni as, Patinax, Corten, Acor 50, HSB 51, etc. Excellent mechanical properties.	**DAIKOW 66**	MIG – TIG	A5.28 ER80S-G	EN ISO 14341-A G 50 4 M21 Z	0.09	1.40	0.80	0.010	0.007	0.80	0.30	0.01	-	0.40	-	-		-	>630	>560	>24	60 (-40°C)
		G-TECH 57B	SMAW	A5.5 E8018-W2	EN ISO 2560-A E 46 2 Z B 42	0.06	1.30	0.60	0.015	0.006	0.55	0.55	0.02	-	0.48	-	-	-	N=0,04	>600	>500	>22	70 (-20°C)
		DAIKOFCW 66R	FCAW	A5.36 E81T1-WC2	EN ISO 17632-A T 50 0 Z P C 1	0.05	1.20	0.45	0.025	0.025	1.20	0.30	-	-	0.50	-	-	-	-	>630	>430	>22	47 (-40°C)
		DAIKOFCW 66B	FCAW	A5.36 E80T5	EN ISO 17632-A T 46 4 Z P M 1	0.05	1.20	0.45	0.020	0.020	1.20	0.30	-	-	0.50	-	-	-	-	>600	>500	>22	47 (-40°C)
		DAIKOMCW 66	FCAW	A5.36 E81T15	EN ISO 17632-A T 46 6 M M21 H5	0.06	1.20	0.45	0.025	0.025	-	0.30	-	-	0.50	-	-	-	-	>550	>420	>22	47 (-60°C)
		DAIKOWS 66	SAW	A5.23 EG	EN ISO 14171-A S2Ni1Cu	0.10	1.00	0.20	0.009	0.008	0.70	0.30	0.03	-	0.40	-	-	-	-	640	560	23	103 (-40°C)

COPPER ALLOYS

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION												MECHANICAL PROPERTIES			
						Cu	Zn	Sn	Mn	Fe	Si	Ni	P	Al	Pb	Ti	Other	TS [MPa]	YS [MPa]	EL%	Hardness
Cu	Consumables for joining copper parts, furnace soldering and electrical and electronic components.	**DAIKOW CuSn**	MIG - TIG	A5.7 ERCu	DIN 1733 - SG - CuSn	Bal.	-	0.80	0.20	-	0.20	-	0.01	-	-	-	<0.50	>190	>70	>33	60 HB
		G-TECH CuSn	SMAW	A5.6 ECu	DIN 1733 EL-CuMn2	Bal.	-	0.80	1.50	0.10	-	-	0.01	-	-	-	<0.50	>180	>70	>33	70 HB
CuSi	Consumables used for a wide range of general purpose applications including weld overlay. Applications include component for chemical plant, tube for heat exchangers, electrical components. Specially used for welding car bodies in the automotive industries.	**DAIKOW CuSi3**	MIG - TIG	A5.7 ERCuSi-A	DIN 1733 - SG - CuSi3	Bal.	0.004	0.003	0.90	0.003	2.90	0.002	0.02	0.003	0.020	-	<0.50	>340	>140	>40	90 HB
CuAg	Copper-silver alloy specially used for welding eletronic components.	**DAIKOW CuAg**	MIG - TIG	-	DIN 1733 - SG - CuAg	Bal.	-	-	0.10	-	-	-	0.01	-	-	-	<0.50	>200	>70	>35	80 HB
CuSn	Consumables used for welding a range of copper base alloys to themselves and to carbon steels or cast irons. The higher tin content increases strength and wear resistance and increases the solidification temperature range during deposition of the weld metal (lower preheating to about 200°C is required). Also suitable for weld overlays on steel component. Not suitable for stainless steels because Cr pick-up cause embrittlement.	**DAIKOW CuSn6**	MIG - TIG	A5.7 ERCuSn-A	DIN 1733 - SG- CuSn6	Bal.	-	6.50		-	-	-	0.25	-	-	-	<0.50	>250	>130	>20	80 HB
		G-TECH CuSn7	SMAW	A5.6 ECuSn-C	DIN 1733 EL - CuSn7	Bal.	-	8.00	0.10	-	-	-	0.20	-	-	-	<0.50	>300	>130	>20	>80 HB
		DAIKOW CuSn8	MIG - TIG	A5.7 ERCuSn-C	DIN 1733 - SG - CuSn6 mod.	Bal.	-	8.00		-	-	-	0.10	-	-	-	<0.50	>310	>130	>25	>90 HB
		DAIKOW CuSn9	MIG - TIG	A5.7 - NO AWS	EN ISO 24373 Cu5211	Bal.	-	9.50	0.25	-	0.25	-		-	-	-	<0.50	>320	>130	>20	90 HB
		DAIKOW CuSn12	MIG - TIG	A5.7 - NO AWS	EN ISO 24373 Cu5410	Bal.	-	13.00	-	-	-	-	0.20	-	-	-	<0.50	>280	>140	>20	90 HB
CuAl	aluminum bronze alloy used for welding aluminum bronze (copper-aluminium alloys). It is excellent for cladding components undergoing metal to metal wear and for corrosion resistant surfaces. Applications include tube sheets, pickling hooks, impellers, valve seats, chemical plants, pulp mills, etc. to corrosion and wear.	**DAIKOW CuAl8**	MIG - TIG	A5.7 ERCuAl-A1		Bal.	0.004	0.003	0.50	0.01	0.003	0.003	0.001	8.20	0.002	-	<0.50	450	190	38	>100 HB
		G-TECH 401	SMAW	A5.6 ECuAl-8	DIN 1733 EL-CuAL8	Bal.	-	-	0.50	1.20	0.50			8.10		-	<0.50	440	190	>20	>130 HB
		DAIKOW CuAl9Fe	MIG - TIG	A5.7 ERCuAl-A2		Bal.	0.004	0.005	0.50	0.90	0.003	0.002	0.002	9.10	0.002	-	<0.50	>500	>200	>32	>160 HB
		G-TECH 405	SMAW	A5.6 ECuAl-A2	DIN 1733 EL-CuAL9	Bal.	-	-	1.00	0.70	-	-	-	8.10		-	<0.50	>500	>200	>35	>170 HB
CuAlNi	Aluminum bronze alloy used for welding steel and aluminum bronze (copper-aluminium alloys). It is excellent for cladding components undergoing metal to metal wear and for corrosion resistant surfaces. The addition of nickel improves corrosion resistance in heat and rough seawater. Applications include tube sheets, pickling hooks, impellers, valve seats, chemical plants, pulp mills, etc.	**DAIKOW CuAl8Ni2**	MIG - TIG	-	DIN 1733 - SG - CuAl8Ni2	Bal.	0.004	0.003	1.35	2.15	0.003	1.95	0.001	8.10	0.001	-	<0.50	>520	>230	>30	>150 HB
		DAIKOW CuAl8Ni6	MIG - TIG	A5.7 ERCuNiAl	DIN 1733 - SG - CuAl9Ni5	Bal.	0.004	0.003	0.85	3.85	0.003	4.55	0.001	8.70	0.015	-	<0.50	>680	>260	>15	>190
CuMnAl	Highest grade of the Al-Bronze-types. Seawater-resistant copper-aluminum alloy without Zn with high toughness and improved hardness (excellent wear and abrasion resistance and to cavitation and erosion). Excellently suitable for joining and cladding of copper alloys, unalloyed and low-alloy steels and grey cast iron. Very good weldability compare to the more common Al bronzes.	**DAIKOW CuMn13Al**	MIG - TIG	A5.7 ERCuMnNiAl	DIN 1733 SG-CuMn13Al7	Bal.	0.004	0.003	12.10	2.50	0.003	2.40	0.001	7.70	0.001	-	<0.50	>890	>340	>10	>220
		G-TECH 403	SMAW	A5.6 ECuMnNiAl	DIN 1733 EL-CuMn14Al	Bal.	-	-	13.50	2.50	-	2.20	-	7.10	0.010	-	<0.50	660	400	15	>210
CuNi 70-30	Designed to match the CuNi 70/30 alloys. The consumables are suitable for surfacing and cladding provided buttering layer is made (normally buttering is made with alloy 400 or pure nickel). Applications include offshore construction, desalination plant, evaporators, condenser, etc, in salt and sea water processing system.	**DAIKOW 413**	MIG - TIG	A5.7 ERCuNi	DIN 1733 - SG - CuNi30Fe	Bal.	-	-	1.00	0.50	-	31.00	-	-	-	0.40	<0.50	>420	>230	>34	>100
		DAIKOW 187	SMAW	A5.6 ECuNi	-	Bal.	-	-	1.80	0.60	0.40	30.00	0.015	-	-		<0.50	>390	>240	>25	>100
		DAIKOSTRIP 413	STRIP	A5.7 EQCuNi	-	Bal.	0.025	-	0.80	0.70	0.10	31.00	-	-	-	0.30	<0.50	-	-	-	-
CuNi 90-10	Consumable with nominal composition 86%Cu and 10.5%Ni for welding 90/10 base materials. Applications include offshore construction, desalination plant, evaporators, condenser, etc, in salt and sea water processing system.	**DAIKOW 412**	MIG - TIG	-	DIN 1733 - SG - CuNi10Fe	Bal.	-	-	1.10	0.50	-	10.50	-	-	-	0.40	<0.50	>300	>180	>32	>80

COBALT ALLOYS

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION											MECHANICAL PROPERTIES
						C	Mn	Si	Cr	Ni	Mo	Fe	W	Co	B	Other	Hardness
Gr. 6	These consumables combine good abrasion resistance with resistance to corrosion, erosion and thermal shock. It is used to surface valves and valve seats, hot shear blades, cold and hot forming rolls, equipment for handling hot steel and for applications in a very wide range of industries including petro-chemical, steel, cement, marine and power generation	**DAIKOW 1006LC**	FCAW	A5.21 ERCCoCr-A	DIN 8555 MF 20-MF-40-CKTZ	0.80	0.95	1.20	29.0	0.12	0.04	3.60	4.60	Bal.	-	-	39 HRc
		DAIKOW 1006	FCAW	A5.21 ERCCoCr-A	DIN 8555 MF 20-MF-40-CKTZ	1.00	0.93	1.16	28.0	0.15	0.04	3.80	5.20	Bal.	-	-	41 HRc
		DAIKOW 1006	TIG	A5.21 ERCoCr-A	-	1.00	0.35	1.35	29.0	2.30	0.05	2.10	4.70	Bal.	-	<0.50	41 HRc
		GTECH 1006	SMAW	A5.13 ECoCr-A	DIN 8555 E-20-UM-55-CTZ	0.90	0.80	1.10	29.0	2.50	0.02	3.00	4.70	Bal.	-	-	42 HRc
Gr. 12	These consumables combine exceptional resistance to metal to metal wear with resistance to corrosion, erosion and thermal shock. It is used for temperature service up to 800°C. It is used to surface valves and valve seats for oil & gas industries, screw conveyors and augers for rubber and plastic, saw teeth for wood industries, cams, shafts, tappets and push rods for engines, etc. ...	**DAIKOW 1008**	FCAW	A5.21 ERCCoCr-B	DIN 8555 MF 20-MF-50-CTZ	1.50	1.10	1.00	30.0	-	-	2.80	7.50	Bal.	-	-	46 HRc
		DAIKOW 1008	TIG	A5.21 ERCoCr-B	-	1.10	-	1.30	30.0	2.20	-	2.00	8.60	Bal.	0.20	<0.50	47 HRc
		G-TECH 1008	SMAW	A5.13 ECoCr-B	DIN 8555 E20-UM-50-CTZ	1.20	-	1.20	30.0	2.30	-	3.20	8.70	Bal.	-	-	48 HRc
Gr 1	Consumables for hardfacing with excellent abrasion and corrosion resistance for applications such as pump sleeves, rotary seal rings, wear pads, expeller screws and bearing sleeves. It retains its hardness at temperatures up to 760°C.	**DAIKOW 1010**	FCAW	A5.21 ERCCoCr-C	DIN 8555 MF 20-MF-55-CTZ	2.40	0.10	0.70	29.0	-	-	3.60	11.00	Bal.	-	-	54 HRc
		DAIKOW 1010	TIG	A5.21 ERCoCr-C	-	2.20	0.30	0.80	30.0	2.20	-	2.20	12.00	Bal.	-	-	54 HRc
		G-TECH 1010	SMAW	A5.13 ECoCr-C	DIN 8555 E20-UM-55-CTZ	2.00	0.50	0.70	32.0	1.80	-	2.50	12.50	Bal.	-	-	55 HRc
Gr. 21	These electrodes are used for hardsurfacing parts subject to a combination of impact, abrasion, corrosion and high temperatures. Excellent for corrosion resistance and metal-to-metal wear resistance. Used for integral seats and guides of large water and high-pressure valve bodies, hot shears, forging dies, pump shafts and sleeves, hot punches etc.	**DAIKOW 1021**	FCAW	A5.21 ERCCoCr-E	DIN 8555 MF 20-MF-350-CKTZ	0.21	1.00	1.10	28.3	2.85	5.50	3.50	0.010	Bal.	-	-	31 HRc
		DAIKOW 1021	TIG	A5.21 ERCoCr-E	-	0.24	0.80	1.00	28.0	2.70	5.40	3.90	0.030	Bal.	-	-	32 HRc
		G-TECH 1021	SMAW	A5.13 ECoCr-E	DIN 8555 E20-UM-300-CTZ	0.30	0.70	0.90	27.1	2.50	5.30	4.30	0.050	Bal.	-	<1,0	35 HRc
Gr.25	These products combine excellent high temperature strength with good corrosion resistance up to 980°C. Typical applications include gas turbine engine components, furnace components, tools to work hot steel etc.	**DAIKOW 1025**	TIG	-	EN 14700 T Z Co (L 605)	0.20	0.80	0.90	21.0	11.0	-	2.30	15.50	Bal.	-	-	23 HRc
		G-TECH 1025	SMAW	-	EN 14700 E Z Co1 (L 605)	0.10	1.00	0.80	20.0	10.0	-	2.00	15.00	Bal.	-	-	25 HRc

TITANIUM ALLOYS

ALLOY	DESCRIPTION	PRODUCT	FORMAT	AWS	OTHER STANDARD	COMPOSITION												MECHANICAL PROPERTIES		
						C	O	N	H	Fe	Al	V	Pd	Ru	Ni	Ti	Other	TS [MPa]	YS [MPa]	EL%
Gr. 1	This consumable is the lowest strength unalloyed commercially pure grade and it is suitable for welding Titanium grade 1, 2, 3 and 4. The weld deposit is ductile and offers excellent corrosion resistance. This product has excellent weldability. Typical applications is in chemical industry.	**DAIKOW Ti-1**	MIG - TIG	A5.16 ERTi-1	-	0.06 0.10	0.06 0.08	0.010 0.030	0.003 0.015	0.05 0.15	-	-	-	-	-	Bal.	-	240	170	24
Gr. 2	DAIKO Ti 2 is the most common Commercially Pure grade. It is used for process equipment like pressure vessels, columns, tanks, heat exchangers, shafts, blowers and fans, condenser tubing, valves, fittings, and pipe. This product is developed for welding Titanium grade 1, 2, 3 and 4 and offers excellent weldabillity.	**DAIKOW Ti-2**	MIG - TIG	A5.16 ERTi-2	-	0.02 0.03	0.25 0.90	0.010 0.050	0.007 0.015	0.10 0.30	-	-	-	-	-	Bal.	-	460	390	20
Gr. 5	DAIKO Ti 5 is a titanium grade 5 (Ti 6Al-4V), commonly called "6-4," is the most common and widely used alloy grade. It has a UTS of 895 MPa minimum, good 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.	**DAIKOW Ti-5**	MIG - TIG	A5.16 ERTi-5	-	0.01 0.08	0.14 0.20	0.005 0.006	0.004 0.015	0.10 0.40	5.50 6.75	3.50 4.50				Bal.	-	1000	900	8
Gr. 7	DAIKO Ti 7 has the same mechanical properties as DAIKO Ti 2. DAIKO Ti 7 can be used for welding Grade 2 or 16 where improved corrosion performance is required. The 0.12 wt% palladium addition improves corrosion performance.	**DAIKOW Ti-7**	MIG - TIG	A5.16 ERTi-7	-	0.02 0.08	0.09 0.25	0.009 0.030	0.006 0.015	0.10 0.30	-	-	0.20 0.25	-	-	Bal.	-	420	280	20
Gr. 12	DAIKO Ti 12 is a highly corrosion resistant alloy containing small additions of nickel and molybdenum, which enhance corrosion resistance and increase the strength of the alloy to give better mechanical properties than the commercially pure grades.	**DAIKOW Ti-12**	MIG - TIG	A5.16 ERTi-12	-	0.07 0.08	0.12 0.25	0.010 0.030	0.006 0.015	0.10 0.30	-	-	-	-	0.70 0.90	Bal.	Mo=0.30	490	350	25

FLUX

ALLOY	DESCRIPTION	PRODUCT	PROCESS	BASICITY	STANDARD
Carbon and Low Alloy steels	Aluminate-rutile agglomerate flux optimized for welding general carbon and low alloy steels with yield strength up to 355MPa and thickness less than 25 mm. It is particularly suitable for welding at high speed, up to 2 meters / minute and a maximum of three passes, ensuring an excellent appearance of the bead, absence of marginal incisions and excellent detachment of the slag.	**DAIKOFLUX 470-W**	SAW	0,6	ISO 14174: S A AR 1 87 AC
	Agglomerated semi-basic flux for carbon steel ad low alloy steels for general application with excellent welding performance for single and multilayer application. It can be used for single, tandem, twin and multi wire welding systems with an excellent slag removal also in narrow groove welds and thick wall sections. It is suitable for both AC and DC welding.	**DAIKOFLUX 480-W**	SAW	1,7	ISO 14174: S A AB 1 67 AC H5
	Fluoride-basic flux with high basicity and low impurity levels such as P and S for joining carbon steel and low alloy steels. Specific for structural steels with high resistance, such as pressure vessels, boilers and pipes. Thanks to the low oxygen levels in the weld deposits excellent mechanical properties and high toughness values at low temperature are achieved. Neutral slag-reactions behavior ensures chemical analysis of the weld metal to be controlled by appropriate selection of wire electrodes. Suitable for welding on D.C. and A.C. both in single and tandem wire processes.	**DAIKOFLUX 490-W**	SAW	3,1	ISO 14174: S A FB 1 55 AC H5
	Fluoride-basic flux with high basicity and low impurity levels such as P and S for critical applications and thick sections for high toughness at low temperatures, down to -60 °C. Suitable for high tensile steel such as S690QL. Thanks to the low oxygen levels in the weld deposits excellent mechanical properties and high toughness values at low temperature are achieved. It shows excellent weldability and weld bead appearance and can be used for multi wire applications requiring high deposition rate and good slag removal are required. Suitable for welding on D.C. and A.C. both in single and tandem wire processes and multi-wire processes.	**DAIKOFLUX 491-W**	SAW	3,2	ISO 14174: S A FB 1 55 AC H5
Low Alloy and Martensitic Steels	Agglomerated high basic flux for low alloys and martensitic steels (400 serie).	**DAIKOFLUX 493-W**	SAW	3,1	ISO 14174: S A FB 1 55 DC H5
Stainless Steels	Specially designed semi-basic flux for welding and cladding austenitic and Duplex/Superduplex. This neutral flux grants outstanding results in the welding of the standard austenitic and heat-resisting stainless steels. It can be used for joint-and overlay welding of nickel alloys. Characterized by smooth flat weld beads in fillet welding with a finely ripped surface and almost self-releasing slag.	**DAIKOFLUX 900-W**	SAW	1,9	ISO 14174: S A AF 2 5644 DC H5
Low Alloy and austenitic stainless steels	Semi-basic prefused flux for Cr-Mo steels (e.g. p5, p9, p91) and austenitic stainless steels. Also suitable for nickel base alloys. The metallurgical behaviour of the flux is C-neutral with low Si and Mn pick-up without Cr compensation. Both for welding DC using single wire and DC/AC for multi-wire processes. Weld beads are smooth and free of slag residuals with flat weld interfaces even in narrow gaps and on preheated work pieces.	**DAIKOFLUX 982**	SAW	1,3	ISO 14174: S F CS 1 63 DC (LOW ALLOY) ISO 14174: S F CS 2 5742 DC (STAINLESS)
Nickel Alloys	Basic neutral agglomerated flux for heavy thickness welding/cladding of nickel base alloys. Typical applications are groove welding commercially pure nickel to itself and to steels, and overlaying carbon steels with the ER Ni-1 filler metal. The flux is also suitable to use with ER NiCr-3 and ER NiCr-Mo-3 for overlaying and multi-pass welding.	**DAIKOFLUX 960-W**	SAW	4	ISO 14174: S A AF 2
	agglomerated fluoride-basic flux for welding nickel alloys. It is also suitable for welding Duplex and fully austenitic steels and heat-resistant steels	**DAIKOFLUX 996-W**	SAW	3	ISO 14174: S A FB 2
	agglomerated fluoride- basic flux with a completely neutral behaviour in terms of carbon and silicon for joining nickel based alloys	**DAIKOFLUX 996-WS**	SAW	2,7	ISO 14174: S A FB 2
Strip Cladding	High basic, agglomerated and neutral flux, without alloy-compensation, designed for stainless steel strip cladding with electroslag process. It grants excellent slag removal without slag residuals, especially in combination with Nb-alloyed strips, both in the first layer on preheated substrates and in subsequent layers. The flux allows to have smooth weld bead appearance and low dilution.	**DAIKOFLUX 930**	ESW	4,5	ISO 14174: ES A FB 2B 5644 DC
	High basic, agglomerated and neutral flux, without alloy-compensation, designed for stainless steel strip cladding with submerged arc welding process. It grants excellent slag removal without slag residuals, especially in combination with Nb-alloyed strips, both in the first layer on preheated substrates and in subsequent layers. The flux allows to have smooth weld bead appearance and low dilution.	**DAIKOFLUX 937AS**	SAW	1,2	ISO 14174: S A CS 2 5644 DC
	Neutral agglomerated basic flux for high-speed cladding with nickel base strips for submerged arc welding process. Thanks to the very high resistance to hot cracking, it can be used to obtain a fully austenitic weld metal. Excellent slag removal together with good wettability grant a smooth weld surface.	**DAIKOFLUX 940**	ESW	4	ISO 14174: S A FB 2
	Basic flux for strip cladding with nickel base strips for submerged arc welding process	**DAIKOFLUX 942AS**	SAW	2,3	EN 760-SA AB 2
	High basic, agglomerated neutral flux for nickel base strip cladding with electroslag processes, with or without magnetic steering. It shows Smooth weld bead and excellent slag removal without slag residuals both in the 1st layer on preheated substrates and in subsequent layers or when joint cladding.	**DAIKOFLUX 944**	ESW	4,6	ISO 14174: ES A FB 2B 5644 DC
	Compensated agglomerated flux for strip weld overlay applications depositing ASME 5.11: E NiCrMo3 type in one layer with Fe <5%.	**DAIKOFLUX 940SL**	ESW	7	ISO 14174: ES A FB 2B

WEAR RESISTANT WIRES AND TIG RODS

PRODUCT	FORMAT	CLASSIFICATION DIN 8555	CHEMICAL COMPOSITION												HARDNESS
			C	Si	Mn	Cr	Mo	V	W	Ti	Ni	Co	Al		HRc
DAIKOW 350	MIG-TIG-SAW	MSG 5-GZ-350	0,08	0,55	0,90	6,00	0,90								36-40
DAIKOW 201R	MIG-TIG-SAW	MSG 6-GZ-60	0,45	3,00	0,40	9,30									55-60
DAIKOW 65H	MIG-TIG-SAW	MSG 3-GZ-60T	0,35	1,10	0,40	5,20	1,40	0,40	1,30						57-60
DAIKOW 3004	MIG-TIG-SAW	MSG 3-GZ-40PT	0,13	0,55	0,60	6,40	3,20								38-42
DAIKOW 3003	MIG-TIG-SAW	MSG 3-GZ-50ST	0,28	0,60	0,70	5,20	3,80			0,70					45-50
DAIKOW 3002	MIG-TIG-SAW	MSG 3-GZ-55ST	0,35	0,30	1,20	7,00	2,20			0,30					52-57
DAIKOW 3013H	MIG-TIG-SAW	W. Nr. 1.2344	0,40	1,00	0,40	5,20	1,40	0,20	1,00						54-60
DAIKOW 3001HS	MIG-TIG-SAW	WSG 4-GZ-60-S	0,90	0,25	0,30	4,30	4,90	1,80	6,30						60-64
DAIKOW 3007M	MIG-TIG	W. Nr. 1.3348	1,00	0,40	0,30	3,80	8,60	1,90	1,80						57-62
DAIKOW 3018MG	MIG-TIG	W. Nr. 1.6356	0,01	0,05	0,01		4,00			1,50	18,00	12,00	0,12		38-54
DAIKOW 4130	MIG-TIG-SAW	W. Nr. 1.7218	0,30	0,30	0,50	1,00	0,20	0,20							36-40

WEAR RESISTANT FLUX CORED WIRES

PRODUCT	FORMAT	CLASSIFICATION DIN EN 14700	CHEMICAL COMPOSITION												HARDNESS
			C	Si	Mn	Cr	Ni	Mo	Co	Nb	V	W	Ti	Oth.	HRc
DAIKOFCW 814Mn	FCAW	T Fe 9 - 200 - KNP	1,00	0,40	14,00	4,00	0,60								220 HB
DAIKOFCW 814MnCr	FCAW	T Fe 9 - 250 - KNP	0,40	0,40	16,00	14,00	1,20	0,60			0,20				240 HB
DAIKOMCW 201R	FCAW	T Fe 8 - 60 - GP	0,08	0,55	0,90	7,00		1,40					5,00		57-61
DAIKOMCW 203	FCAW	T Fe 2	0,50	0,60	1,50	6,50		0,50							57-61
DAIKOFCW 600Ti	FCAW	T Fe 8 - 60 - GP	0,08	0,55	0,90	7,00		1,40					5,00		57-61
DAIKOFCW 800NR	FCAW	No Classification	0,57	0,70	1,00	5,40		1,00			0,60	1,20			59-61
DAIKOMCW 864	FCAW	T Fe 13	0,50	0,30	1,10	0,30	1,50							B 4,80	62-64
DAIKOFCW 650	FCAW	TZ Fe 16 - 50 - G	3,00	1,80	1,80	15,00		1,00							50-54
DAIKOFCW 640	FCAW	T Fe 15 - 60 - GR	3,70	1,20		32,00									57-59
DAIKOFCW 655	FCAW	T Fe 14 - 60 - GR	4,80			28,00								B+	55-59
DAIKOFCW 656Mo	FCAW	T Fe 14 - 60 - G	5,00	1,70		27,00		1,30							59-60
DAIKOFCW 850	FCAW	T Fe 15	4,80	1,70	2,70	22,00									55-59
DAIKOFCW 643	FCAW	T Fe 16 - 65 - GZ	3,80			22,00					1,00	2,00		B 1,00	62-64
DAIKOFCW 695	FCAW	T Fe 16 - 65 - GZ	5,20	1,00		21,00		7,00		7,00	1,00	2,00			63-65
DAIKOFCW 661Nb	FCAW	T Fe 15 - 65 - G	5,40			22,00				7,00				B+	62-65
DAIKOFCW 720	FCAW	TZ Fe 13 - 65 - G	0,70	1,00	2,00		2,00							B 4,50	65-68
DAIKOFCW 670Nb	FCAW	TZ Fe 15 - 65 - G	2,50	0,90	1,80	13,00				5,00				B 2,00	66-68
DAIKOFCW 690NT	FCAW	No Classification	1,80	0,80	0,50	8,00	0,30	+		+	+	+		B+	69-71
DAIKOFCW 650W	FCAW	T Fe 3 - 50 - ST	0,30			2,50					0,60	4,50			48-50
DAIKOFCW 655W	FCAW	T Fe 3 - 55 - ST	0,30			2,50			2,00		0,30	7,00			53-56
DAIKOFCW 2002	FCAW	T Fe 20 - 65 - GZ										62,00			65-66
DAIKOFCW 2003	FCAW	T Ni 20 - 55 - CGTZ		+		+	+					62,00		B+	61-64
DAIKOFCW 323	FCAW	W. Nr. 1.3912	<1,00		3,00		36,00								150 HB
DAIKOFCW 323/S	FCAW	MF – NiFe-2	<1,00		4,00		57,00								185 HB
DAIKOFCW 345	FCAW	No Classification	0,70	1,00	4,00		45,00								165 HB
DAIKOFCW 3004	FCAW	No Classification	0,13	0,60	1,00	9,00	1,70	3,00							46-52
DAIKOFCW 3750	FCAW	TZ Fe 3 - 50 - CKTZ	0,20	0,70	1,20	14,50	1,50	3,00	12,50						50-53
DAIKOFCW 1002Co	FCAW	T Ni 2 - 250 - CKNPTZ	0,08			16,00	Bal.	16,00	2,50		0,40	4,50		Fe <5,00	32-42
DAIKOFCW 520Co	FCAW	T Ni 2 - 350 - CKPTZ	0,05			19,00	Bal.	5,00	11,00		0,30	5,00	3,00	Al 2,00	340 HB
DAIKOFCW 430	FCAW	T Fe 8	0,10			17,50									220 HB
DAIKOFCW 420	FCAW	T Fe 8	0,30			13,50		0,50							45-47
DAIKOFCW 4140N	FCAW	~ 410NiMo	0,05	0,90	1,10	14,00	5,00	0,75						N 0,20	40-42

Other products on request.

CERTIFICATIONS AND TECHNICAL ASSISTANCE

- UNI EN ISO 9001 quality system ICIM certificate nr.1245/3
- TuV certificate (nr. 0035-CPR-C908) for Factory Production Control system
- TuV approval of a qualified manufacturer of Welding Consumables pursuant to VdTuV 1153
- Technical assistance provided by qualified Welding Engineer I.W.E. nr.120085A

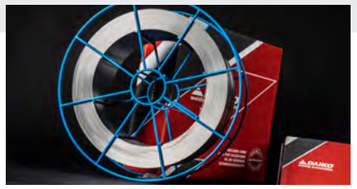
TÜV APPROVALS

PRODUCT	PROCESS	AWS	APPROVAL
DAIKOWM 308LSI	MIG	AWS A5.9: ER308LSi	TÜV
DAIKOWT 308L	TIG	AWS A5.9: ER308L	TÜV
DAIKOWM 307SI	MIG	(AWS A5.9: ER307Si)	TÜV
DAIKOWM 309LSI	MIG	AWS A5.9: ER309LSi	TÜV
DAIKOWT 309LSI	TIG	AWS A5.9: ER309LSi	TÜV
DAIKOWM 316LSI	MIG	AWS A5.9: ER316LSi	TÜV
DAIKOWT 316L	TIG	AWS A5.9: ER316L	TÜV
DAIKOWM 318SI	MIG	AWS A5.9: (ER318Si)	TÜV
DAIKOWM 347SI	MIG	AWS A5.9: ER347Si	TÜV
DAIKOWM 2209	MIG	AWS A5.9: ER2209	TÜV
DAIKOWT 2209	TIG	AWS A5.9: ER2209	TÜV
DAIKOWM 82	MIG	AWS A5.14: ERNiCr-3	TÜV
DAIKOWM 625	MIG	AWS A5.14: ERNiCrMo-3	TÜV
DAIKOWT 625	TIG	AWS A5.14: ERNiCrMo-3	TÜV
DAIKOWT 82	TIG	AWS A5.14: ERNiCr-3	TÜV
DAIKOFCW 316L	FCAW	AWS A5.22: E316LT0-1/4	TÜV
DAIKOFCW 308L	FCAW	AWS A5.22: E308LT0-1/4	TÜV
DAIKOFCW 347P	FCAW	AWS A5.22: E347T1-1/4	TÜV
DAIKOFCW 309L	FCAW	AWS A5.22: E309LT0-1/4	TÜV
DAIKOFCW 309LMO	FCAW	AWS A5.22: E309LMoT0-1/4	TÜV
DAIKOFCW 2209	FCAW	AWS A5.22: E2209T0-4	TÜV
DAIKOFCW 102S	FCAW	A5.20 E71T-1C/1M-H8 / E71T-9C/9M-H8	RINA
DAIKOMCW 107S	FCAW	A5.18 E70C-6M	RINA
DAIKOWT 2594	TIG	AWS A5.9 ER2594	TÜV
G-TECH 316LR	SMAW	AWS A5.4 E316L-17	TÜV
G-TECH 308LR	SMAW	AWS A5.4 E308L-17	TÜV
G-TECH 107B	SMAW	AWS A5.1 E7018-1	TÜV
DAIKOWM AlMg5	MIG	AWS A5.10 ER5356	RINA, DB
DAIKOWM AlMg4,5Mn	MIG	AWS A5.10 ER5183	RINA
DAIKOWM AlMg4,5MnZr	MIG	AWS A5.10 ER5087	DB

FORMS OF SUPPLY FOR THE WELDING PRODUCTS

WIRE

Mig/Mag, Tig and Subarc.
Note: Weights shown are standard, and may change for some alloys i.e. Aluminium alloys.


BS 300 basket spool (15 kg)


DIN 760 Big Reel (150-250 kg)


Drum (150-250 kg)


K 415 spool (25 kg)


D200 plastic spool (5 kg)


D100 plastic spool (1 kg)

TIG ROD

Note: Weights shown are standard, and may change for some alloys i.e. Aluminium alloys.


Tube (5 kg)


Box – 4 tubes (20 kg)

STICK ELECTRODE


Cartboard box


Dry pack


Tube

FLUX

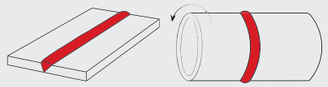
Metallic drum (15-25 kg)

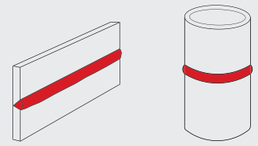

Bag (15-25 kg)

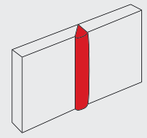
STRIP

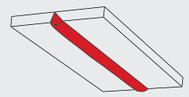

Coil 30/60/90 x 0.5mm (25-300 kg)

ASME (EN ISO) POSITIONS FIGURES

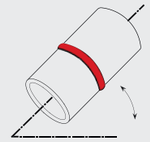

1G (PA) – downhand / gravity butt

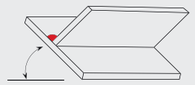

2G (PC) – horizontal-vertical butt

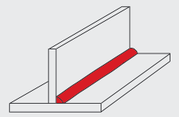

3G (PF) – vertical butt

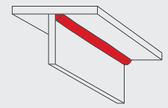

4G (PE) – overhead butt

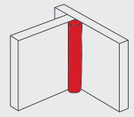

5G (PF) – horizontal pipe butt


6G (H-LO45) – inclined pipe butt


1F (PA) – downhand or gravity fillet


2F (PB) – standing fillet


4F (PD) – overhead fillet


3F (PF) – vertical fillet

WELDING POSITIONS

WELDING POSITIONS ACCORDING TO ASME IX

1G, 1F	Flat Position
2G, 2F	Horizontal Position
3G, 3F	Vertical Position
4G, 4F	Overhead Position
5G, 5F	Multiple Position
6G	Multiple Position

WELDING POSITIONS ACCORDING TO EN ISO 6947

PA	flat position
PB	horizontal vertical position
PC	horizontal position
PD	horizontal overhead position
PE	overhead position
PF	vertical up position
PG	vertical down position
PH	pipe position for welding upwards (formerly PF)
PJ	pipe position for welding downwards (formerly PG)

STORAGE AND HANDLING

UNI EN 3834 for welding quality management requires that procedures for storage and handling should be provided, so that material is not damaged.

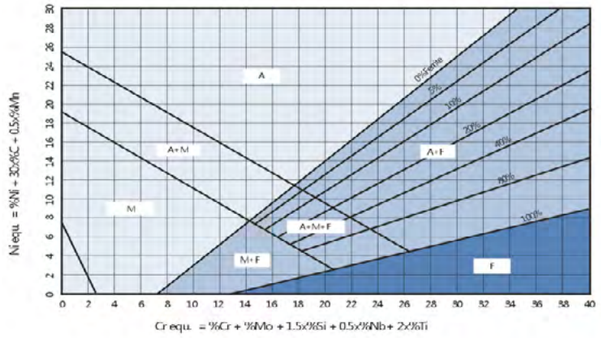
Storage of coated electrodes contained in cardboard boxes should be carried out in controlled temperature and humidity areas. The best conditions for storage are:
/ Temperature 17 ÷ 27 ° C, relative humidity 60% (max);
/ Temperature 27 ÷ 37 ° C, relative humidity 50% (max);

The maximum storage life should not exceed 3 years. It is advisable to not overstock more than 5 boxes one over the other. Electrodes hermetically sealed in cans can be used directly in welding activities generally for 8 hours after opening and have no storage life limit before opening the pack. After exposure to moisture, the electrodes must be reconditioned and maintained before welding according to the directions given for each product.

Temperature and humidity storage conditions for wires are same as coated electrodes. Submerged arc fluxes stored in sealed bags can be used directly. It may be necessary to re-condition fluxes according to manufacturer's instructions if they are exposed to moisture. Fluxes that have not been fused may generally be recovered and reused after separation from scum and other pollutants. Mig wires and Tig rods are not affected by the moisture absorption problem, however, contact with water, moisture, grease, dirt and other potentially polluting substances should be avoided. Wires should be stored in dry environments and relative temperatures and humidity should be monitored.

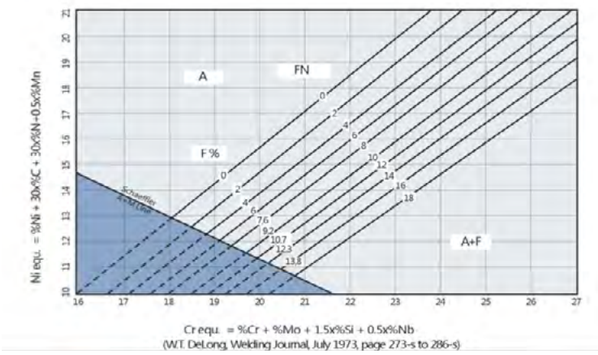
Condensation: In order to prevent moisture condensation on the surface of materials, it is appropriate, when there is a significant difference in temperature between usage area and storage area, to wait for material to reach room temperature before opening the package. Storage and handling must always be adequate to prevent damages. Particular attention should be paid to the handling of wire in drums since any damage may compromise the subsequent feeding of the wire during welding.

DIAGRAMS



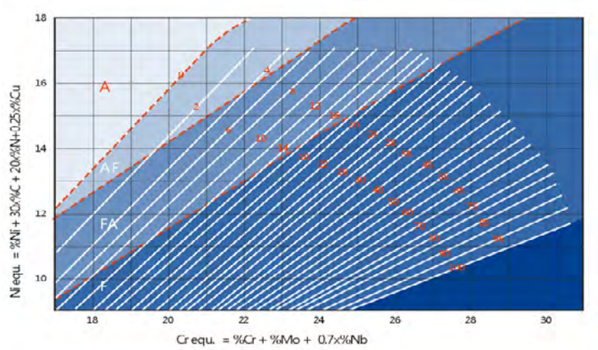
SCHAEFFLER DIAGRAM

The Schaeffler diagram is useful for predicting the constitution of your stainless steel weld deposit. Depending on the alloying elements it contains, the Schaeffler diagram provides information on the various phases (structures) present. The chromium equivalent is calculated from the weight percentage of ferrite-forming elements (Cr, Si, Mo, Nb, W) and the nickel equivalent is calculated from the weight percentage of austenite-forming elements (C, Ni, Mn, Cu, N). The position in the Schaeffler diagram defined by the Cr- and Ni-equivalents gives the proportions of martensite, austenite and ferrite in the resulting microstrutture.



DELONG DIAGRAM

This refines the Schaffler diagram by taking account of the strong austenite stabilising tendency of nitrogen. The chromium equivalent is unaffected but the nickel equivalent is modified to Ni (eq) = Ni + (30 x C) + (0.5 x Mn) + (30 x N)



WRC - 1992 DIAGRAM

Diagram developed to increase the accuracy of Ferrite Number (FN) prediction in stainless steel weld metal and related dissimilar metal joints. The WRC-1992 diagram includes a coefficient for Cu in the Ni equivalent.

HARDNESS COMPARISON TABLE

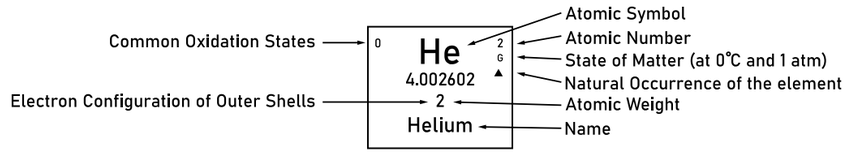
Tensile Strength	Vickers Hardness	Sphere Intender	Brinell Hardness	Rockwell Hardness	
N/mm²	HV	mm	HB	HRB	HRC
200	63	7,32	60		
210	65	7,22	62		
220	69	7.04	66		
230	72	6,95	68		
240	75	6,82	71		
250	79	6,67	75		
255	80	6,63	76		
260	82	6,56	78		
270	85	6,45	81	41	-
280	88	6,35	84	45	
285	90	6,28	86	48	
290	91	6,25	87	49	
300	94	6,19	89	51	
305	95	13,16	90	5.2	
310	97	6,10	92	54	
320	100	6,01	95	56	
330	103	5,93	98	58	
335	105	5,87	100	59	
340	107	5,83	102	60	
350	110	5,75	105	62	
360	113	5,70	107	63,5	
370	115	5,66	109	64,5	
380	119	5,57	113	66	
385	120	5,54	114	67	
390	122	5,50	116	67,5	
400	125	5,44	119	69	
410	128	5,38	122	70	
415	130	5,33	124	71	
420	132	5,32	125	72	
430	135	5,26	128	73	
440	138	5,20	131	74	
450	140	5,17	133	75	
460	143	5,11	136	76,5	
465	145	5,08	138	77	
470	147	5,05	140	7715	
480	150	5,00	143	78,5	
490	153	4,96	145	79,6	
495	155	4,93	147	80	
500	157	4,90	149	81	
510	160	4,86	152	81,5	
520	163	4,81	155	82,5	
530	165	4,78	151	83	
540	168	4,74	160	84,5	
545	170	4,71	162	85	
550	172	4,70	163	85,5	
560	175	4,66	166	86	
570	178	4,62	169	86,5	
575	180	4,59	171	87	
580	181	4,58	172		
590	184	4,54	175	88	
595	185	4,53	176		.
600	187	4,51	178	89	
610	190	4,47	181	89,5	
620	193	4,44	184	90	
625	196	4,43	185		
630	191	4,40	187	91	
640	200	4,37	190	91,5	
650	203	4,34	193	92	
660	205	4,32	195	92,5	.
670	208	4,29	198	93	
675	210	4,27	199	93,5	
680	212	4,25	201		

Tensile Strength	Vickers Hardness	Sphere Intender	Brinell Hardness	Rockwell Hardness	
N/mm²	HV	mm	HB	HRB	HRC
690	215	4,22	204	94	
700	219	4,19	208		
705	220	4,18	209	95	
710	222	4,16	211	95,5	
720	225	4,13	214	96	
730	228	4,11	216		
740	230	4,08	219	96,5	
750	233	4,07	221	97	
755	235	4,05	223		
760	237	4,03	225	97,5	
770	240	4,01	228	98	
780	243	3,98	231		21
785	245	3,97	233		
790	247	3,95	235	99	
800	250	3,93	238	99,5	22
810	253	3,91	240		
820	255	0,89	242		23
830	258	3,87	245		
835	260	3,85	247		24
840	262	3,84	249		
850	265	3,82	252		
860	268	3,80	255		25
865	270	3,78	257		
870	272	3,77	258		
880	275	3,76	261		26
890	278	3,74	264		
900	280	3,72	266		27
910	283	3,70	269		
915	285	3,69	271		
920	287	3,68	273		28
930	290	3,66	276		
940	293	3,64	278		29
950	285	3,63	280		
960	299	3,61	2B4		
965	300	3,60	285		
970	302	3,59	287		30
980	305	3,57	290		
990	308	3,55	293		
995	310	3,54	295		31
1000	311	3,53	296		
1010	314	3,52	299		
1020	317	3,50	301		32
1030	320	3,49	304		
1040	323	3,47	307		
1050	327	3,45	311		33
1060	330	3,44	314		
1070	333	3,43	316		
1080	336	3,41	319		34
1090	339	3,40	322		
1095	340	3,39	323	-	
1100	342	3,38	325		35
1110	345	3,36	328		
1120	349	3,35	332		
1125	350	3,34	333		
1130	352	3,33	334		
1140	355	3,32	337		36
1150	358	3,31	340		
1155	360	3,30	342		
1160	361	3,29	343		
1170	364	3,28	346	.	37
1180	367	3,26	349		
1190	370	3,25	352		

Tensile Strength	Vickers Hardness	Sphere Intender	Brinell Hardness	Rockwell Hardness	
N/mm²	HV	mm	HB	HRB	HRC
1200	373	3,24	354		38
1210	376	3,23	357		
1220	380	3,21	361		
1230	382	3,2	363		39
1240	385	3,19	366		
1250	388	3,18	369		
1255	390	3,17	371		
1260	392		372		40
1270	394	3,16	374		
1280	397	3,14	377		
1290	400	3,13	380		
1300	403	3,12	383		41
1310	407	3,10,	387		
1320	410	3,09	390		
1330	413	3,08	393		42
1340	417	3,07	396		
1350	420	3,06	399		
1360	423	3,05	402		
1370	426	3,04	405		
1380	429		408		
1385	430	3,02	409		
1390	431		410		
1400	434	3,01	413		44
1410	437	3,00	415		
1420	440	2,99	418		
1430	443	2,98	421		
1440	446	2,97	424		45
1450	449	2,96	427		
1455	450		428		
1460	452	2,95,	429		
1470	455	2,94	432		
1480	458	2,93	435		46
1485	460		437		
1490	461	2,92	438		
1500	464	2,91	441		
1510	467	2,9	444		
1520	470	2,89	447		
1530	473		449		47
1540	475	2,88	452		
1550	479	2,81	455		
1555	480		456		
1560	481	2,86	457		
1570	484	2,85	460		48
1580	486		462		
1590	489	2,84	465		
1595	490	2,83	466		
1600	491		467		
1610	494	2,82	470		
1620	497		472		49
1630	500		475		
1640	503	2,8	478		
1650	506	2,79	481		
1660	509		483		
1665	510	2,78	485		
1670	511		486		
1680	514	2,77	488		50
1690	517	2,76	491		
1700	520	2,75	494		
1710	522		495		
1720	525	2,74	499		
1730	527		501		51
1740	530	2,73	504		

Tensile Strength	Vickers Hardness	Sphere Intender	Brinell Hardness	Scala Rockwell	
N/mm²	HV	mm	HB	HRB	HRC
1750	533	2,72	506		
1760	536	2,71	509		
1770	539		512		
1775	540	2,70	513		
1780	541		514		52
1790	544	2,69	517		
1800	547		520		
1810	550	2,68	523		
1820	553	2,67	525		
1830	556		528		
1840	559	2,66	531		
1845	560		532		53
1850	561	2,65	533		
1860	564		536		
1870	567	2,64	539		
1880	570		542		
1890	572	2,63	543		
1900	5'15	2,62	546		
1910	578		549		54
1920	580	2.61	551		
1930	583	2,60	554		
1940	586		557		
1950	589	2,59	560		
1955	590		561		
1960	591		562		
1970	594	2,58	564		
1980	596		567		55
1990	599	2,57	569		
1995	600		570		
2000	602	2,56	572		
2010	605		575		
2020	607	2,55	577		
2030	610		580		
2040	613	2,54	582		
2050	615		584		56
2060	618	2,53	587		
2070	620		589		
2080	623	2,52	592		
2090	626		595		
2100	629	2,51	598		
2105	630		599		
2110	631		600		
2120	634	2,50	602		
2130	636		604		
2140	639	2,49	607		57
2145	640		608		
2150	641		609		
2160	644	2,48	612		
2170	647	2.47	615		
2180	650		620		
2190	653	2,46	622		
2200	655				58
	675				59
	698				60
	720				61
	745				62
	773				63
	800				64
	829				65
	864				66
	900				67
	940				68

PERIODIC TABLE OF THE ELEMENTS



1/IA	2/IIA	3/IIIB	4/IVB	5/VB	6/VIB	7/VIIB	8/VIII	9/VIII	10/VIII	11/IB	12/IIB	13/IIIA	14/IVA	15/VA	16/VIA	17/VIIA	18/VIIIA/0
+1 H 1 G ▲ 1.00794 1 Hydrogen																	0 He 2 G ▲ 4.002602 2 Helium
+1 Li 3 S ▲ 6.941 2-1 Lithium	+2 Be 4 S ▲ 9.012182 2-2 Beryllium											+3 B 5 S ▲ 10.811 2-3 Boron	+2 +4 C 6 S ▲ 12.011 2-4 Carbon	±1 ±2 ±3 +4 +5 N 7 G ▲ 14.00674 2-5 Nitrogen	-2 O 8 G ▲ 15.9994 2-6 Oxygen	-1 F 9 G ▲ 18.9984032 2-7 Fluorine	0 Ne 10 G ▲ 20.1797 2-8 Neon
+1 Na 11 S ▲ 22.989768 2-8-1 Sodium	+2 Mg 12 S ▲ 24.3050 2-8-2 Magnesium											+3 Al 13 S ▲ 26.981539 -2-8-3 Aluminium	+2 +4 Si 14 S ▲ 28.0855 2-8-4 Silicon	±3 +5 P 15 S ▲ 30.973762 2-8-5 Phosphorus	+4 +6 -2 S 16 S ▲ 32.066 2-8-6 Sulphur	±1 +5 +7 Cl 17 G ▲ 35.4527 -2-8-7 Chlorine	0 Ar 18 G ▲ 39.948 2-8-8 Argon
+1 K 19 S ▲ 39.0983 -8-8-1 Potassium	+2 Ca 20 S ▲ 40.078 -8-8-2 Calcium	+3 Sc 21 S ▲ 44.955910 -8-9-2 Scandium	+2 +3 +4 Ti 22 S ▲ 47.867 -8-10-2 Titanium	+2 +3 +4 +5 V 23 S ▲ 50.9415 -8-11-2 Vanadium	+2 +3 +6 Cr 24 S ▲ 51.9961 -8-13-1 Chromium	+2 +3 +4 +6 +7 Mn 25 S ▲ 54.93805 -8-13-2 Manganese	+2 +3 Fe 26 S ▲ 55.845 -8-14-2 Iron	+2 +3 Co 27 S ▲ 58.9332 -8-15-2 Cobalt	+2 +3 Ni 28 S ▲ 58.6934 -8-16-2 Nickel	+1 +2 Cu 29 S ▲ 63.546 -8-18-1 Copper	+2 Zu 30 S ▲ 65.39 -8-18-2 Zinc	+3 Ga 31 S ▲ 69.723 -8-18-3 Gallium	+2 +4 Ge 32 S ▲ 72.61 -8-18-4 Germanium	±3 +5 As 33 S ▲ 74.92159 -8-18-5 Arsenic	+4 +6 -2 Se 34 S ▲ 78.96 -8-18-6 Selenium	±1 +5 Br 35 L ▲ 79.904 -8-18-7 Bromine	0 Kr 36 G ▲ 83.80 -8-18-8 Krypton
+1 Rb 37 S ▲ 85.4678 -18-8-1 Rubidium	+2 Sr 38 S ▲ 87.62 -18-8-2 Strontium	+3 Y 39 S ▲ 88.90585 -18-9-2 Yttrium	+4 Zr 40 S ▲ 91.224 -18-10-2 Zirconium	+3 +5 Nb 41 S ▲ 92.90638 -18-12-1 Niobium	+6 Mo 42 S ▲ 95.94 -18-13-1 Molybdenum	+6 +6 +7 Tc 43 S ■ (97.9072) -18-13-2 Technetium	+3 Ru 44 S ▲ 101.07 -18-15-1 Ruthenium	+3 Rh 45 S ▲ 102.9055 -18-16-1 Rhodium	+2 +4 Pd 46 S ▲ 106.42 -8-18-0 Palladium	+1 Ag 47 S ▲ 107.8682 -18-18-1 Silver	+2 Cd 48 S ▲ 112.411 -18-18-2 Cadmium	+3 In 49 S ▲ 114.818 -18-8-3 Indium	+2 +4 Sn 50 S ▲ 118.71 -18-18-4 Tin	±3 +5 Sb 51 S ▲ 121.76 -18-18-5 Antimony	+4 +6 -2 Te 52 S ▲ 127.6 -18-18-6 Tellurium	±1 +5 +7 I 53 S ▲ 126.90447 -18-18-7 Iodine	0 Xe 54 G ▲ 131.29 -18-18-8 Xenon
+1 Cs 55 S ▲ 132.90543 -18-8-1 Cesium	+2 Ba 56 S ▲ 137.327 -18-8-2 Barium	57-71 See Lanthanide	+4 Hf 72 S ▲ 178.49 -32-10-2 Hafnium	+5 Ta 73 S ▲ 180.9479 -32-11-2 Tantalum	+6 W 74 S ▲ 183.84 -32-12-2 Tungsten	+6 +6 +7 Re 75 S ▲ 186.207 -32-13-2 Rhenium	+3 +4 Os 76 S ▲ 190.2 -32-14-2 Osmium	+3 +4 Ir 77 S ▲ 192.217 -32-15-2 Iridium	+2 +4 Pt 78 S ▲ 195.08 -32-16-2 Platium	+1 +3 Au 79 S ▲ 196.96654 -32-18-1 Gold	+1 +2 Hg 80 L ▲ 200.59 -32-18-2 Mercury	+1 +3 Tl 81 S ▲ 204.3833 -32-18-3 Thallium	+2 +4 Pb 82 S ▲ 207.2 -32-18-4 Lead	+3 +5 Bi 83 S ▲ 208.98037 -32-18-5 Bismuth	+2 +4 Po 84 S ■ 208.9824 -32-18-6 Polonium	±1 +5 +7 At 85 S ■ 209.9871 -32-18-7 Astatine	0 Rn 86 G ■ 222.0176 -32-18-8 Radon
+1 Fr 87 S ■ 223.0197 -18-8-1 Francium	+2 Ra 88 S ■ 226.0254 -18-8-2 Radium	89-103 See Actinides	+3 +4 Rf 104 U ● 267 -32-10-2 Rutherfordium	+5 Db 105 U ● 268 -32-11-2 Dubnium	+6 Sg 106 U ● 269 -32-12-2 Seaborgium	+3 +4 +5 +7 Bh 107 U ● 270 -32-13-2 Bohrium	+2 +4 +6 +8 Hs 108 U ● 269 -32-14-2 Hassium	+1 +3 +6 Mt 109 U ● 278 -32-15-2 Meitnerium	0 +2 +8 Ds 110 U ● 281 -32-16-2 Darmstadtium	+3 Rg 111 U ● 282 -32-17-2 Roentgentium	0 +2 Cn 112 U ● 285 -32-18-2 Copernicum	+1 +3 Nh 113 U ● 286 -32-18-3 Nihonium	+2 Fl 114 U ● 289 -32-18-4 Flerovium	+1 +3 Mc 115 U ● 290 -32-18-5 Moscovium	+2 Lv 116 U ● 293 -32-18-6 Livermorium	+1 +3 Ts 117 U ● 294 -32-18-7 Tennessine	+2 +4 Og 118 U ● 294 -32-18-8 Oganesson

+3 La 57 S ▲ 138.9055 -18-9-2 Lanthanium	+3 +4 Ce 58 S ▲ 140.115 -20-8-2 Cerium	+3 Pr 59 S ▲ 140.90765 -21-8-2 Praseodymium	+3 Nd 60 S ▲ 144.24 -22-8-2 Neodymium	+3 Pm 61 S ■ 144.9127 -23-8-2 Promethium	+2 +3 Sm 62 S ▲ 150.36 -24-8-2 Samarium	+2 +3 Eu 63 S ▲ 151.965 -25-8-2 Europium	+3 Gd 64 S ▲ 157.25 -25-9-2 Gadolinium	+3 Tb 65 S ▲ 158.92534 -27-8-2 Terbium	+3 Dy 66 S ▲ 162.50 -28-8-2 Dysprosium	+3 Ho 67 S ▲ 164.93032 -29-8-2 Holmium	+3 Er 68 S ▲ 167.26 -30-8-2 Erbium	+3 Tm 69 S ▲ 168.93421 -31-8-2 Thulium	+2 +3 Yb 70 S ▲ 173.04 -32-8-2 Ytterbium	+3 Lu 71 S ▲ 174.967 -32-9-2 Lutetium
+3 Ac 89 S ■ 227.0278 -18-9-2 Actinium	+4 Th 90 S ▲ 232.0381 -18-10-2 Thorium	+4 +5 Pa 91 S ■ 231.0388 -20-9-2 Protactinium	+3 +4 +5 +6 U 92 S ▲ 238.0289 -21-9-2 Uranium	+3 +4 +5 +6 Np 93 S ■ 237.0482 -22-9-2 Neptunium	+3 +4 +5 +6 Pu 94 S ■ 244.0642 -24-8-2 Plutonium	+2 +3 +4 +5 +6 Am 95 S ● 243.0614 -25-8-2 Americium	+3 Cm 96 S ● 247.0703 -25-9-2 Curium	+3 +4 Bk 97 S ● 247.0703 -27-8-2 Berkelium	+3 Cf 98 S ● 251.0796 -28-8-2 Californium	+3 Es 99 S ● 252.083 -29-8-2 Einsteinium	+3 Fm 100 U ● 257.0951 -30-8-2 Fermium	+3 +4 Md 101 U ● 258.10 -31-8-2 Mendelevium	+2 +3 No 102 U ● 259.1009 -32-8-2 Nobelium	+3 Lr 103 U ● 262.11 -32-9-2 Lawrencium

- Reactive Nonmetal
- Alkali Metal
- Alkaline Earth Metal
- Transition Metal
- Lanthanide
- Actinide
- Post-Transition Metal
- Unknown Chemical Properties
- Metalloid
- Noble Gas

G = Gas
S = Solid
L = Liquid
U = Unknown

▲ Primordial
■ From Decay
● Synthetic

WELDING CONSUMABLES

TOTAL QUALITY MANAGEMENT

DAIKO strives to maintain professionalism and timeliness in relation to all of its customer's needs related to both service and products. On this premise, DAIKO has adopted a certified system of Quality Management oriented toward achieving continuous improvement aimed at increasing customer satisfaction.

OFFICIAL PARTNER DUCATI LENOVO TEAM AND GOLD SPONSOR PIACENZA VOLLEY

DAIKO, following the passion for sport and an international brand enhancement strategy, is official partner of Ducati Corse in MotoGP and sponsor with Gas Sales Piacenza Volley. The typically Italian technical excellence and attention to team play are in fact deeply rooted in DAIKO's DNA.

DUCATI CORSE | Official Partner | VOLLEY PIACENZA BLUENERGY DAIKO

Rev.01-2023

DAIKO S.R.L.

Via Toscana, 3A-3B
20056 - Grezzago (MILANO) - Italy
Ph.+39 02 9090477

Via Aquileia, 13-15
31048 - S. Biagio di Callalta (TREVISO) - Italy
Ph. +39 0422 796367

LEGAL OFFICE
DAIKO S.R.L
Viale G. G. Felissent 84/D - 31100 - TREVISO - Italy
REA 416562 VAT and T.C. IT04907220265

daikowelding.com
daiko@daikowelding.com

DAIKO