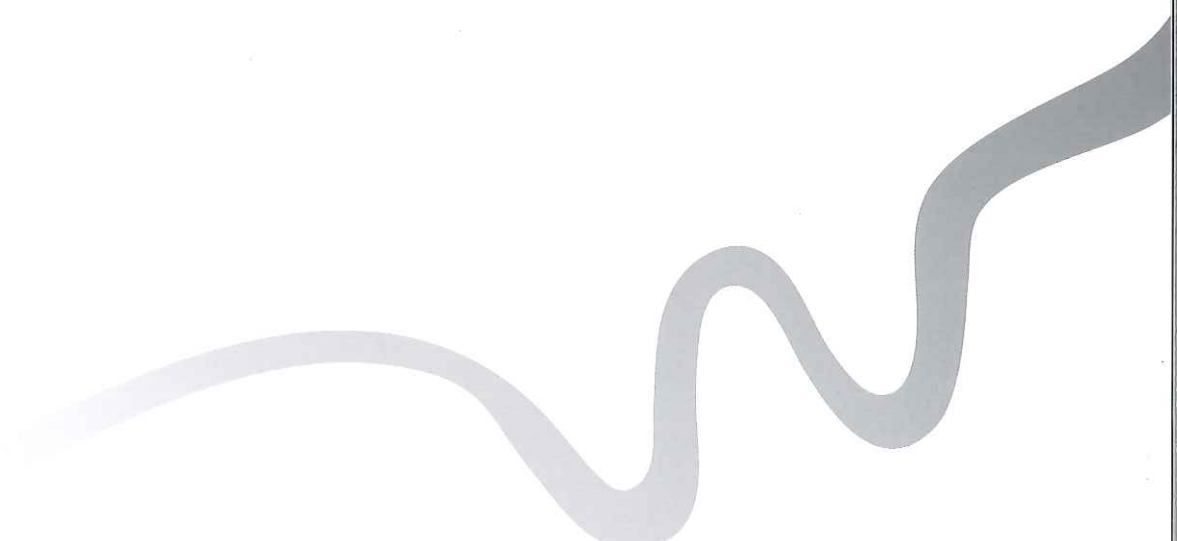




**KUANG TAI**

The Green Power of Welding & Wire

Nickel & Nickel Alloy



# Nickel & Nickel Alloy

KT Nickel & Nickel Alloy series electrode

An excellent welding consumable solution

What we provide -->

30-year experience  
of wire drawing

Strong technical  
support on welding  
procedures

Comprehensive  
knowledge  
of flux design

°C

WIDE RANGE OF  
SURFACE  
TEMPERATURE



GREAT  
RESISTANCE TO  
HOT CRACKING &  
HOT CREEP



RESISTANCE  
TO HYDROGEN  
INDUCED  
CRACKING



DUCTILITY  
GUARANTEE AT  
CRYOGENIC  
ENVIRONMENT

## Demanding applications requiring nickel and nickel alloy consumables

- LNG (Liquid Natural Gas) tank
- Thermal power station ( the fabrication of boilers/casings for steam/gas turbines etc.)
- Nuclear power plant
- Pressure vessel
- Dissimilar metal welds between nickel base and most steels or other ferrous alloys
- Comprehensively used in chemical, petroleum chemistry and aeronautical constructions

## Key Benefits

- Wide range of surface temperature from cryogenic up to elevated temperatures of 1000°C plus
- Retain ductility and crack resistance with a high level of safety at gas liquefaction temperatures
- Reduce possibilities of hydrogen induced cracking
- Great resistance to hot cracking
- Improved hot creep resistance





## Complete grades, variable product forms - Fulfill any kind of applications

Process	Product Name	Classification (AWS)	Mechanical Property of Weld Metal		Chemical Composition (mass %)													
			TS (Mpa)	EL (%)	C	Si	Mn	Cr	Ni	Nb	Fe	Al	Ti	Mo	Cu	P	S	Others
GMAW GTAW	KMS-96 KTS-96	ERNi-1	514	44	0.020	0.47	0.40	-	95.70	0.01	-	0.10	3.10	-	0.004	0.003	0.001	
	KMS-60 KTS-60	ERNiCu-7	541	39	0.050	0.33	3.40	-	64.80	-	-	0.09	2.24	-	28.97	0.001	0.002	
	KMS-82 KTS-82	ERNiCr-3	671	41	0.040	0.09	2.90	20.00	72.40	2.35	-	-	0.45	0.02	-	0.004	0.001	
	KMS-75 KTS-75	ERNiCrFe-5	651	45	0.011	0.16	2.90	17.00	72.60	1.80	4.90	0.16	0.40	-	0.010	0.003	0.002	
	KMS-601 KTS-601	ERNiCrFe-11	662	42	0.040	0.30	0.51	22.94	59.70	-	15.19	1.31	-	-	0.009	0.001	0.001	
	KMS-67 KTS-67	ERCuNi	816	48	0.040	0.03	0.76	-	31.01	-	-	-	0.26	-	67.200	0.001	0.002	
	KMS-617 KTS-617	ERNiCrCoMo-1	749	34	0.007	0.30	0.30	22.40	54.86	-	-	1.20	-	-	0.020	0.003	0.001	
	KMS-59 KTS-59	ERNiCrMo-13	662	42	0.003	0.03	0.20	22.90	60.61	-	-	0.20	0.01	15.50	0.010	0.006	0.002	
	KMS-61 KTS-61	ERNiCrMo-3	819	39	0.010	0.06	0.04	21.90	63.90	3.52	-	0.17	0.23	8.80	0.010	0.002	0.002	
	KMS-17 KTS-17	ERNiCrMo-4	729	45	0.003	0.02	0.30	16.00	57.66	-	-	-	-	16.20	0.030	0.001	0.003	V 0.23 W 3.4
	KMS-22 KTS-22	ERNiCrMo-10	740	46	0.001	0.06	0.20	22.19	55.80	-	-	-	-	14.11	0.010	0.001	0.001	Co 0.02 W 3.0
	KMS-65 KTS-65	ERNiFeCr-1	602	33	0.010	0.18	0.50	21.30	42.30	-	30.34	0.06	0.60	2.70	2.000	0.010	0.001	
	KMS-44 KTS-44	ERNiFeMn-Cl	602	33	0.340	0.20	11.80	-	42.07	-	45.54	0.01	-	-	0.030	0.004	0.002	
	KMS-200 KTS-200	ERNi-Cl	766	20	0.380	0.02	0.13	-	99.73	-	-	-	-	-	0.02	0.001	0.001	Co 0.009
SAW	KW-96	ERNi-1	514	44	0.020	0.47	0.40	-	95.70	0.01	-	0.10	3.10	-	0.004	0.003	0.001	
	KW-60	ERNiCu-7	541	39	0.050	0.33	3.40	-	64.80	-	-	0.09	2.24	-	28.97	0.001	0.002	
	KW-82	ERNiCr-3	671	41	0.040	0.09	2.90	20.00	72.40	2.35	-	-	0.45	0.02	-	0.004	0.001	
	KW-75	ERNiCrFe-5	651	45	0.011	0.16	2.90	17.00	72.60	1.80	4.90	0.16	0.40	-	0.010	0.003	0.002	
	KW-601	ERNiCrFe-11	662	42	0.040	0.30	0.51	22.94	59.70	-	15.19	1.31	-	-	0.009	0.001	0.001	
	KW-67	ERCuNi	816	48	0.040	0.03	0.76	-	31.01	-	-	-	0.26	-	67.200	0.001	0.002	
	KW-617	ERNiCrCoMo-1	749	34	0.007	0.30	0.30	22.40	54.86	-	-	1.20	-	-	0.020	0.003	0.001	
	KW-59	ERNiCrMo-13	662	42	0.003	0.03	0.20	22.90	60.61	-	-	0.20	0.01	15.50	0.010	0.006	0.002	
	KW-61	ERNiCrMo-3	819	39	0.010	0.06	0.04	21.90	63.90	3.52	-	0.17	0.23	8.80	0.010	0.002	0.002	
	KW-17	ERNiCrMo-4	729	45	0.003	0.02	0.30	16.00	57.66	-	-	-	-	16.20	0.030	0.001	0.003	V 0.23
	KW-22	ERNiCrMo-10	740	46	0.001	0.06	0.20	22.19	55.80	-	-	-	-	14.11	0.010	0.001	0.001	Co 0.02 W 3.0
	KW-65	ERNiFeCr-1	602	33	0.010	0.18	0.50	21.30	42.30	-	30.34	0.06	0.60	2.70	2.000	0.010	0.001	
	KW-44	ERNiFeMn-Cl	602	33	0.340	0.20	11.80	-	42.07	-	45.54	0.01	-	-	0.030	0.004	0.002	
	KW-200	ERNi-Cl	766	20	0.380	0.02	0.13	-	99.73	-	-	-	-	-	0.02	0.001	0.001	Co 0.009

Process	Product Name	Classification (AWS)	Mechanical Property of Weld Metal			Chemical Composition of Deposited Metal (mass %)													
			TS (Mpa)	EL (%)	CVN (J@-196°C)	C	Si	Mn	Cr	Ni	Nb	Fe	Co	Ti	Mo	W	Cu	P	S
SMAW	KNi-70C	A5.11 ENiCrFe-3	630	41	98	0.060	0.54	6.20	13.50	69.20	1.70	9.23	0.11	0.07	-	-	-	0.006	0.007
	KNi-60-3	A5.11 ENiCrMo-3	770	39	60	0.042	0.28	0.36	21.58	62.30	3.18	3.20	-	-	8.90	-	-	0.009	0.008
	KNi-60-4	A5.11 ENiCrMo-4	730	40	50	0.040	0.34	0.71	16.40	Bal.	-	5.30	-	-	16.82	3.54	-	0.003	0.003
	KNi-60-7	A5.11 ENiCu-7	500	43	100	0.004	0.68	3.18	-	66.50	-	0.51	-	0.18	-	-	Bal.	0.009	0.008

#### TAIWAN

- ◆ KUANG TAI METAL INDUSTRIAL. CO., LTD.  
No. 20, Kung Yeh rd., Erh Chen Tsun,  
Kuan Tien Hsiang, Tainan Hsien, Taiwan  
T : 886-6-6987615 F : 886-6-6988792

- ◆ KUANG TAI METAL INDUSTRIAL. CO., LTD.  
KAOHSIUNG BRANCH  
No. 8, Lu-Ke 3rd Rosa, Lu-Chu Hsiang,  
Kaohsiung Hsien, Taiwan  
T : 886-7-6955155 F : 886-7-6955166

#### MAINLAND CHINA

- ◆ JINING LITAI METAL INDUSTRIAL. CO.,LTD.  
No.1, Nong Ji rd., Jining City,  
Inner Mongolia, China  
T : 0474-829-4128 F : 0474-829-4120

#### VIETNAM

- ◆ KUANG TAI METAL (VIETNAM) CO.,LTD.  
Kcn Nhon Trach 3 , Huyen Nhon Trach,  
Tinh Dong Nai , Vietnam  
T : 84-61-3560097 F : 84-61-3560243

#### JAPAN

- ◆ KUANG TAI MATEL JAPAN CO., LTD.  
Horidome D BLDG.2F,1-5-1,  
Nihonbashi-Horidome-Cho, Chuo-Ku,  
Tokyo,103-0012, Japan  
T : 81-3-5641-0451 F : 81-3-5641-0458  
Contact : Akira Izumi  
<http://www.kuangtaij.com>

#### INDIA

- ◆ KT WELD ING TECHNOLOGIES PVT LTD.  
No.307 Shoppers Orbit, Alandi rd.,  
Vishrantwadi Pune 411015, India  
T : 91-20-46747770 F : 91-20-46747775  
E : m\_moolchandani@hotmail.com  
Contact : Mahesh Moolchandani

#### KOREA

- ◆ WELD METAL KORE CO., LTD.  
Rm. 1205, Jeil B/D. 99-3, Garak-Dong,  
Songpa-Gu, Seoul, Korea  
E : weldmetal@naver.com  
Contact : Mr.Choi, Hee-Shik  
Cell : 82-17-326-1934

#### MALAYSIA

- ◆ ASIA WELDING TECHNOLOGIES  
NO.9 Jalan BK 2/1,Bandar Kinrara 47100  
Puchong Selangor, Malaysia SDN BHD  
T : 603-78466936 F : 603-78468813  
E : klchung@kuangtai.com  
Contact : K.L. Chung

