

GMAW / GTAW Wires for Ni and Ni-Based Alloy

Product	Classification		Chemical composition of weld metal (wt %)						
	AWS	JIS	C	Si	Mn	Ni	Cr	Mo	Nb+ Ta
KMS-96 KTS-96	ERNi-1	S Ni 2061	0.020	0.34	0.24	95.50	—	—	—
KMS-60 KTS-60	ERNiCu-7	S Ni 4060	0.020	0.68	3.21	65.68	—	—	—
KMS-82 KTS-82	ERNiCr-3	S Ni 6082	0.030	0.12	3.05	72.80	19.86	—	2.40
KMS-75 KTS-75	ERNiCrFe-5	S Ni 6062	0.060	0.14	0.51	75.06	14.79	—	1.99
KMS-76 KTS-76	ERNiCrFe-6	S Ni 7092	0.040	0.08	2.24	71.96	—	—	—
KMS-70 KTS-70	ERNiMo-7	S Ni 1066	0.010	0.01	0.20	Rem.	0.4	26.8	—
KMS-63 KTS-63	ERNiCrMo-1	---	0.020	0.40	1.4	Rem.	21.7	6.4	—
KMS-62 KTS-62	ERNiCrMo-2	S Ni 6002	0.100	0.39	0.57	Rem.	21.65	8.90	—
KMS-61 KTS-61	ERNiCrMo-3	S Ni 6625	0.037	0.11	0.06	61.65	21.55	8.49	3.37
KMS-17 KTS-17	ERNiCrMo-4	S Ni 6276	0.012	0.01	0.50	Rem.	15.90	16.0	—
KMS-22 KTS-22	ERNiCrMo-10	S Ni 6022	0.015	0.08	0.50	Rem.	21.20	13.4	—
KMS-65 KTS-65	ERNiFeCr-1	S Ni 8065	0.020	0.11	0.50	42.91	22.61	2.67	—
KMS-5796 KTS-5796	AMS 5796	---	0.070	0.18	1.38	9.99	19.00	—	—

Chemical composition of weld metal (wt %)					Mechanical Properties		Application
Al	Ti	Fe	Cu	Others	Tensile Strength N/mm ²	Elongation %	
0.80	2.90	0.14	0.001	P 0.002 S 0.002	514	44	Ideal for welding Nickel 200, Nickel 201.
0.064	1.53	0.47	Rem.	P 0.003 S 0.001	541	39	Ideal for welding Monel 400.
—	0.36	1.41	0.03	P 0.006 S 0.004	671	41	Ideal for welding Inconel 600, Incoloy Alloy 75 (N06075) and 751 (N07751).
—	—	6.82	0.03	P 0.006 S 0.001	651	45	Ideal for welding Inconel 600 and Incoloy 800.
—	3.04	6.64	0.14	P 0.005 S 0.003	662	42	Ideal for welding Inconel 600.
—	Co 0.1	1.4	0.14	P 0.001 S 0.003	816	48	Ideal for welding Hastelloy B-2.
—	Co 0.6	19.6	W 0.5	P 0.010 S 0.010	749	34	Ideal for welding Hastelloy G.
—	Co 0.93	18.60	W 0.73	P 0.009 S 0.006	753	40	Ideal for welding Hastelloy X, Incoloy 800H and 800HT.
0.26	0.28	3.90	0.10	P 0.006 S 0.001	819	39	Ideal for welding Inconel 601, 625, 718, Alloy 20 and 45.
—	V 0.23	5.4	W 3.4	P 0.005 S 0.006	729	45	Ideal for welding Hastelloy C-276 (Ni-16Cr-16Mo-5Fe- 4W).
—	Co 0.02	3.6	W 3.0	P 0.020 S 0.020	740	46	Ideal for welding Hastelloy C-22 (Ni-22Cr-13Mo-4Fe- 3W).
0.06	0.81	28.24	2.18	P 0.001 S 0.010	602	33	Ideal for welding Incoloy 825.
—	Co Rem	2.52	W 14.87	P 0.050 S 0.090	766	20	Ideal for Haynes 25.