

Classification	Product Name		AWS Specificaiton		ENISO Specificaiton <21952-A>	Dimension (ø mm)	Shielding Gas	Typical mechanical properties of weld metal	
	TIG	MIG	<A5.28>	<A5.28M>				Tensile Strength Mpa	Elongation%
For Heat Resistant Steel	KT80-B2	KM80-B2	ER80S-B2	ER55S-B2	MIG:G (CrMo 1Si) TIG:W (CrMo1Si)	MIG 0.8,1.0,1.2	MIG: 98%Ar+2%	595 690°Cx8h	27 690°Cx8h
	KT90-B3	KM90-B3	ER90S-B3	ER62S-B3	MIG: TIG:W (CrMo2Si)	TIG (CrMo2Si) 1.6,2.0,2.4	CO2 TIG: Ar	640 690°Cx1h	25 690°Cx1h
For Low Temperature Steel			<A5.28>	<A5.28M>	MIG <14341-A> TIG<636-A>				
	KT80-Ni1	KM80-Ni1	ER80S-Ni1	ER55S-Ni1	MIG: G 46 4 A G3Ni1 TIG:W 46 4 A G3Ni1	TIG 1.0,1.2,1.6, 2.0,2.4,3.2	TIG Ar	585/AW 525 620°Cx22h	29/AW 31 620°Cx22h
For High Strength Steel			<A5.28>	<A5.28M>	<16834-A>	MIG 0.8, 1.1,1.2,1.6	MIG Ar+1~5%CO2		
	KT-100	KM-100	ER100S-G	ER69S-G	EG 62 5 M13 Mn3Ni1.5Mo			745	20
	KT-110	KM-110	ER110S-G	ER76S-G	G 69 5 M13 Mn4Ni2Mo			810	19

Typical mechanical composition of weld metal (wt%)							Applications
C	Mn	Si	Cr	Ni	Mo	Others	
0.097	0.60	0.53	1.38	0.05	0.51	-	For 1.25%Cr-0.5%Mo steel, it's suitable for the welding of pipes (operation temperature is around 520°C) and pressure vessel
0.085	0.59	0.54	2.46	0.04	1.04	-	For 2.25%Cr-1%Mo steel, it's suitable for the welding of pipes (operation temperature is around 550°C) and pressure vessel
0.08	1.15	0.71	0.02	1.03	0.01	-	Excellent impact value can be obtained at -45oC, suitable for the welding of low temperature equipment, low temperature aluminium killed steel and LPG storing tank
0.053	1.58	0.34	0.04	1.73	0.29	-	Applicable in important structure of engineering mechanism, port machinery, etc. (For 690MPa grade steel)
0.054	1.65	0.3	0.03	2.25	0.31	-	Applied in the welding of important atructure of engineering machine, port machinery (for 760MPa high tensile steel)

Low Carbon Steel and High Strength Steel Submerged Wire and Flux

Classification	Flux	Wire	AWS Specificaiton <A5.17> <A5.17M>	ENISO Specificaiton <14171-A>	Dimension (ø mm)	Typical mechanical properties of weld metal			
						Yield Strength Mpa	Tensile Strength Mpa	Elongation%	Impact Value J(°C)
	KFL-1101/KSW-12KM	KSW-12KM	F6A2-EM12 F43A2-EM12	S2	1.6, 2.4, 3.2,4.0,5.0	370	460	28	150(-20)
	KFL-125/KSW/12KM	KSW-12KM	A7P6-EM12K	S2Si		434	516	32	65 (-40)
	KFL-1101/KSW-14	KSW-14	FA0-EH14	S4		440	530	32	115 (-20)
	KFL-125/KSW-12KHM	KSW-12KHM	F7A6-EH12K	-		510	600	28	60(-50)

Typical mechanical composition of weld metal (wt%)						Applications
C	Mn	Si	p	s	Others	
0.046	0.72	0.23	0.012	0.01	-	For the welding of 490MPa high strength steel and low alloy steel.
0.058	1	0.35	0.011	0.005	-	Single or multi pass welding of 415~535MPa low carbon steels, especially for shipbuilding, stel structure and heavy machinery with request of impact value in -40°C
0.078	1.65	0.25	0.02	0.005	-	For the welding of 490MPa high strength steel and low alloy steel
0.085	1.69	0.25	0.01	0.002	-	Multi layer welding of various kinds of structures such as ship buildings, offshore structures, machinery , pressure vessels large diaeter and heavy wall steel pipes

Stainless Steel Manual Eelctrode

Classification	Product Name	AWS Specificaiton <A5.4 / 5.4M>	ENISO Specificaiton <3581-A>	Grade No.	Dimension (ø mm)	Typical mechanical properties of weld metal			
						Yield Strength Mpa	Tensile Strength Mpa	Elongation%	Impact Value J(°C)
-16 series Stainless Steel	KE308L	E308L-16	E(19 9 L)R 1 2	A002	2.0,2.6,3.2,4.0,5.0	-	595	42	-
	KE308H	E308H-16	E(19 9 H)R 1 2	-	2.0,2.6,3.2,4.0,5.0	-	640	41	-
	KE308LT	E308L-16	E(19 9 L)R 1 2	A002	2.0,2.6,3.2,4.0,5.0	-	575	45	32 (-196)
	KE309L	E309L-16	E(23 12 L)R 1 2	A062	2.0,2.6,3.2,4.0,5.0	-	590	38	-
	KE309LMo	E309LMo-16	E(23 12 2 L)R 1 2	A042	2.0,2.6,3.2,4.0,5.0	-	675	35	-
	KE316H	E316H-16	E(19 12 2)R 1 2	-	2.0,2.6,3.2,4.0,5.0	-	625	39	-
	KE316L	E316L-16	E(19 9 L)R 1 2	A002	2.0,2.6,3.2,4.0,5.0	-	575	39	-

Typical mechanical composition of weld metal (wt%)							Applications
C	Mn	Si	Cr	Ni	Mo	Others	
0.032	0.89	0.60	19.70	9.50	0.01	Cu0.10	The weld metal is low carbon 18Cr-9Ni stainless steel, excellent weldability and stable mechanical properties and good X-ray result. Applicable in petrochemical industry, pressure vessel, food industry, medical device, fertilizer equipment and etc.
0.058	1.36	0.74	20.10	9.30	0.01	cu0.11	For high C-18Cr-9Ni steel, higher tensile than 308, it's applicable in petrochemical industry , pipes, pressure vessel and etc
0.032	0.7	0.5	18.2	10.7	0.15	cu0.10	For 18Cr-8Ni steel under extremely low temperature of -196°C, applicable in petrochemical industry, low temperature storage tank and etc
0.028	0.80	0.65	23.50	12.50	0.25	cu0.10	The weld metal is low carbon 22Cr-12Ni stainless steel, excellent weldability and stable mechanical properties, good x-ray result and excellent crack resistance. Suitable for dissimilar metals welding of joining mild steel to stainless steel or austenitic stainless steel to martensitic stainless steel.
0.028	1.1	0.77	22.7	13.4	2.5	cu0.19	The weld metal is low carbon 22Cr-12Ni-2Mo. Good crack resistance and corrosion resistance, suitable for dissimilar metals welding of joining mild steel to stainless steel and martensite stainless steel to ferrite stainless steel, cast iron as well.
0.054	1.51	0.68	18.70	11.30	2.70	cu0.13	The weld metal is high carbon 18Cr-12Ni-2Mo stainless steel, good high temperature strength. Applicable in fertilizer equipment, urea equipment and petrochemical facility and etc.
0.03	0.75	0.65	18.80	12.0	2.70	cu0.05	The weld metal is low carbon 18Cr-12Ni-2Mo stainless steel, good corrosion resistance against H2SO4 and H3PO3. Applicable in fertilizer equipment, urea equipment and etc