



MAG WELDING CONSUMABLES.

Solid wires

Application	Brand name	Dia. (mm)	Welding position	Shielding gas	Equivalent specification	Type of current	Typical chemical composition of rod and wire (%)					Typical hardness of all-weld-metal				Main use
							C	Si	Mn	P	S	Y.P N/ mm <sup>2</sup> {kgf/ mm <sup>2</sup> }	T.S N/ mm <sup>2</sup> {kgf/ mm <sup>2</sup> }	EI. (%)	I.V J {kgf . m}	
For carbon steel	AS-G	0.8-2.4	F,V,OH,H	CO <sub>2</sub> or Ar+CO <sub>2</sub>	AWS ER70S-G JIS YGW11	DC(+)	0.11	0.55	1.31	0.013	0.010	490 {50}	560 {57}	29	110 {11} (-29°C)	Welding of structural stels, ships, bridges, boilers and pressure vessels.
	AS-6 AS-4	0.8-2.4	F,V,OH,H	CO <sub>2</sub> or Ar+CO <sub>2</sub>	AWS ER70S-4 JIS YGW12	DC(+)	0.08	0.50	1.05	0.013	0.010	450 {46}	550 {56}	30	90 {9} (-29°C)	Welding of general shop fabrications, construction works, electric products.

Flux cored wires

Application	Brand name	Dia. (mm)	Welding position	Shielding gas	Equivalent specification	Type of current	Typical chemical composition of rod and wire (%)						Typical hardness of all-weld-metal				Main use
							C	Si	Mn	Cr	Ni	Mo	T.S N/ mm <sup>2</sup> {kgf/ mm <sup>2</sup> }	EI. (%)	I.V J {kgf . m}	Hardness (HV)	
For carbon steel	AW-71	1.2-3.2	F,V,OH, H,VD	CO <sub>2</sub> or Ar+CO <sub>2</sub>	AWS ER71T-1 JIS YFW24	DC(+)	0.05	0.53	1.43	—	—	—	530 {54}	27	80 {8} (0°C)	—	Welding of storage vessels, shipbuilding and other structural fabrications.
	AW-308LT	1.2-1.6	F,V,OH, H,VD	CO <sub>2</sub> or Ar+CO <sub>2</sub>	AWS E308LT-1 JIS YF308LC	DC(+)	0.03	0.74	1.95	19.98	10.24	—	560 {57}	41	—	—	Similar to K-308T but the lower carbon content in the weld deposit. Commonly used on AISI Types 301,302,304,304L and 308L.
	AW-309LT	1.2-1.6	F,V,OH, H,VD	CO <sub>2</sub> or Ar+CO <sub>2</sub>	AWS E309LT-1 JIS YF309LC	DC(+)	0.03	0.72	1.75	23.63	13.10	—	550 {56}	41	—	—	Better intergranular corrosion resistance than K-309T. Welding of similar alloys in wrought or cast forms.
	AW-316LT	1.2-1.6	F,V,OH, H,VD	CO <sub>2</sub> or Ar+CO <sub>2</sub>	AWS E316LT-1 JIS YF316LC	DC(+)	0.03	0.46	1.45	18.47	12.23	2.40	550 {56}	40	—	—	Welding of AISI Types 316,316L and similar alloys.