

GMAW Solid Wire for Stainless Steel

KMS-316L

Classification

AWS	A5.9/A5.9M	ER316L
JIS	Z3321	YS316L
EN	14343-A	G 19 12 3 L
GB	T5092	H03Cr19Ni12Mo2Si

Shielding Gas: Ar+1~2%O₂(CO₂)

Applications and Features

- (1) Weld metal is austenitic structure with 19%Cr-12%Ni-3%Mo.
- (2) 2-3% molybdenum improves pitting corrosion resistance of the weld deposit.
- (3) 0.02% carbon content increases resistance to intergranular corrosion.
- (4) Ideal for welding chemical vessels, high pressure piping and tubing.

Welding Position



Welding Instruction

- (1) Use Ar+1~2%O₂ for spray transfer and Ar+1~2%CO₂ for short-circuit transfer.
- (2) For other instructions, please refer to Appendix B and F.

Typical Chemical Composition of Weld Metal (wt%)

C	Si	Mn	P	S	Cr	Ni	Mo
0.02	0.42	1.91	0.012	0.009	19.14	12.63	2.53

Typical Mechanical Properties of Weld Metal

Tensile Strength	Yield Strength	Elongation
N/mm ²	N/mm ²	%
550	380	39

Size and Suggested Operating Range (DC+)

Diameter (mm)	0.8	0.9	1.0	1.2	1.4	1.6	
Ar+1~2%CO ₂	Current (A)	40~120	60~140	80~160	100~210	-	-
	Voltage (V)	15~20	15~21	16~22	17~22	-	-
Ar+1~2%O ₂	Current (A)	160~210	170~260	180~280	200~300	210~320	220~330
	Voltage (V)	24~28	24~30	24~30	24~30	24~32	24~32