

GMAW Solid Wire for High Tensile Strength Steel

KM-51

Classification

AWS	A5.18	ER70S-G
JIS	Z3312	YGW15
EN	14341-A	G42 2 M21 Z
GB	T 8110	ER50-G

Shielding Gas: 80%Ar+20%CO₂

Applications and Features

- (1) KM-51 is suitable for welding mild steel and 490N/mm² grade steel, such as ship-building, steel structure and machinery.
- (2) Stable arc at high current due to additional special alloy content.
- (3) Wide operation range.

Welding Position

All Positions

Welding Instruction

Please refer to Appendix B.

Typical Chemical Composition of Weld Metal (wt. %)

C	Si	Mn	P	S
0.080	0.42	1.04	0.016	0.025

Typical Mechanical Properties of Weld Metal

Tensile Strength N/mm ² (kgf/mm ²)	Yield Strength N/mm ² (kgf/mm ²)	Elongation %	Charpy V-Notch	
			°C	J (kgf -m)
550(56.1)	480(49.0)	28	0	—
			-20	150(15.3)

Size and Suggested Operating Range (DC+)

Diameter (mm)	0.8	0.9	1.0	1.2	1.4	1.6	
Amp	F	50~180	50~200	50~220	80~350	100~470	200~550
	V-up	50~120	50~140	50~140	50~160	100~180	—
	OH	50~100	50~120	50~120	50~140	—	—