

GMAW Solid Wire for High Tensile Strength Steel

KM-53

Classification

AWS	A5.18	ER70S-3
JIS	Z3312	YGW16
EN	14341-A	G42 2 M21 2Si
GB	T 8110	ER50-3

Shielding Gas: 80%Ar+20%CO₂

Applications and Features

- (1) When performing short circuit transfer welding with mixed gas; then, puddle fluidity, crack resistance, fine spatters, and thin slag is attainable. It is ideal for sheet metal welding that requires smooth weld beads.
- (2) The general purpose of GMAW wire is for single pass and multi-pass welding.
- (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	0.47	1.10	0.015	0.011

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)
558(57.0)	470(48.0)	28	0	—
			-20	137(14.0)

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	80~250	100~350	100~470	200~500
	V-up	50~120	50~140	50~140	50~160	100~180	—
	V-down	50~100	50~200	80~220	80~240	—	—