

GMAW Wires for Low Temperature Steel

KM-80SNi1

Classification

AWS	A 5.28/A5.28M	ER80S-Ni1/ ER55S-Ni1
JIS	Z3312	G 55 A 5 A N2
EN	14341-A	G 50 5 M13 3Ni1
GB	T8110	ER55-Ni1

Shielding Gas: 98%Ar+2 %O₂

Applications and Features

- (1) KM-80SNi1 is suitable for welding 490N/mm² grade steel.
- (2) Excellent toughness at -45°C due to 1% Ni content.
- (3) Ideal for welding in the pressure vessel, tank and pipeline at low temperature service.

Welding position



Welding Instruction

Please refer to Appendix B.

Typical Chemical Composition of Weld Metal (wt%)

C	Si	Mn	P	S	Ni
0.09	0.45	0.93	0.011	0.004	0.97

Typical Mechanical Properties of Weld Metal

Tensile Strength	Yield Strength	Elongation	Charpy V-Notch	
N/mm ²	N/mm ²	%	°C	J
598	509	29	-29	87
			-45	69

Size and Suggested Operating Range (DC+)

Diameter (mm)		0.8	0.9	1.0	1.2	1.4	1.6
Current (A)	H/HF	50~180	50~200	50~220	80~350	100~470	200~500
	V-up	50~100	50~140	50~140	50~140	100~180	-
	OH	50~100	50~120	50~120	50~160	-	-
	V-down	50~100	50~200	-	-	-	-