

GMAW Wire for Nickel and Nickel-Based Alloy

KMS-82

Classification

AWS	A5.14/A5.14M	ERNiCr-3
JIS	Z3334	S Ni 6082
EN	18274	S Ni 6082
GB	T15620	S Ni 6082

Shielding Gas: 75% Ar+25%He

Applications and Features

- (1) The alloy system provides high strength and good corrosion resistance, resists oxidation, and delivers creep-rupture strength at elevated temperatures.
- (2) Ideal for welding materials of similar composition, such as alloys 600, 601 and 800.
- (3) Suitable for applications ranging from cryogenic to high temperatures, such as pipeline, furnace equipment, petrochemical and power generation plant.

Welding Position



Welding Instruction

- (1) Clean surface of base metal before welding.
- (2) For other instructions, please refer to Appendix B.

Typical Chemical Composition of Weld Metal (wt%)

C	Si	Mn	Cr	Fe	Ti	Nb	Ni
0.030	0.12	3.05	19.86	1.41	0.36	2.40	87.8

Typical Mechanical Properties of Weld Metal

Tensile Strength	Yield Strength	Elongation	Charpy V-Notch	
N/mm ²	N/mm ²	%	°C	J
671	423	41	-	-

Size and Suggested Operating Range (DC+)

Diameter (mm)	0.9	1.2	1.6
Current (A)	150~190	180~220	200~250
Voltage (V)	26~29	28~32	29~33