

# GMAW Wire for Nickel and Nickel-Based Alloy

## KMS-61

### Classification

AWS A5.14/A5.14M	ERNi-1
JIS Z3334	SNi2061
EN ISO 18274	S Ni 2061
GB T15620	S Ni 2061

Shielding Gas:75% Ar+25%He

### Applications and Features

- ( 1 ) KMS-61 is 96%Ni-3%Ti alloy.
- ( 2 ) The addition of Ti is to avoid the porosity.
- ( 3 ) Suitable for welding Alloy 200, Alloy 201 and nickel-plated steel sheet .
- ( 4 ) Ideal for welding pressure vessel, structure, equipment of chemical and food industry.

### Welding Position



### Welding Instruction

- ( 1 ) Clean surface of base metal before welding.
- ( 2 ) Heat input should be controlled as low as possible.
- ( 3 ) For other instructions, please refer to Appendix B.

### Typical Chemical Composition of Wire (wt%)

C	Si	Mn	P	S	Ti	Al	Fe	Ni
0.01	0.44	0.40	0.004	0.001	3.00	0.10	0.03	95.80

### Typical Mechanical Properties of Weld Metal

Tensile Strength	Yield Strength	Elongation	Charpy V-Notch	
N/mm <sup>2</sup>	N/mm <sup>2</sup>	%	°C	J
514	310	44	-	-

### Size and Suggested Operating Range (DC+)

Diameter (mm)	0.8	0.9	1.2	1.6
Current (A)	140~180	160~200	190~230	200~250
Voltage (V)	24~27	25~28	26~30	29~33