

GTAW Wire for Nickel and Nickel-Based Alloy

KTS-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: 100% Ar

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) Please refer to Appendix C.

Typical Chemical Composition of Weld Metal (wt%)

| C | Si | Mn | Cr | Fe | Ti | Nb |
|-------|------|------|-------|------|------|------|
| 0.021 | 0.14 | 3.11 | 19.99 | 1.43 | 0.38 | 2.43 |

Typical Mechanical Properties of Weld Metal

| Tensile Strength | Yield Strength | Elongation | Charpy V-Notch | |
|-------------------|-------------------|------------|----------------|---|
| N/mm ² | N/mm ² | % | °C | J |
| 688 | 428 | 42 | - | - |

Size and Suggested Operating Range (DC-)

| Diameter (mm) | 1.0 | 1.2 | 1.6 | 2.0 | 2.4 | 3.2 |
|---------------|------|-----|-----|-----|-----|-----|
| Length (mm) | 1000 | | | | | |