# GTAW Wire for Nickel and Nickel-Based Alloy

# KTS-61

Shielding Gas: 100% Ar

**Classification**

| | | |
|---|---|---|
| AWS | A5.14/A5.14M | ERNiCrMo-3 |
| JIS | Z3334 | S Ni 6625 |
| EN | 18274 | S Ni 6625 |
| GB | T15620 | S Ni 6625 |

## Applications and Features

( 1 ) High molybdenum content provides good stress, pitting and crevice corrosion resistance.

( 2 ) Ideal for welding materials of similar composition, such as Inconel 601, 625, 718 and Alloy 20.

( 3 ) Suited for welding pipeline and reactor components in power generation industry, high temperature service in engineering applications such as furnace equipment, petrochemical plants, and marine/offshore environments.

## Welding Position

## Welding Instruction

( 1 ) Clean surface of base metal before welding.

( 2 ) For other instructions, please refer to Appendix C.

## Typical Chemical Composition of Weld Metal (wt%)

| C | Si | Mn | Cr | Fe | Mo | Nb | Ni |
|---|---|---|---|---|---|---|---|
| 0.012 | 0.08 | 0.05 | 21.23 | 2.54 | 9.22 | 3.45 | 63.05 |

## Typical Mechanical Properties of Weld Metal

| Tensile Strength | Yield Strength | Elongation | Charpy V-Notch | |
|---|---|---|---|---|
| N/mm$^2$ | N/mm$^2$ | % | °C | J |
| 814 | 523 | 39 | -196 | 100 |

## Size and Suggested Operating Range (DC-)

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