

# GTAW Solid Wire for High Tensile Strength Steel

## TG-50

### Classification

AWS	A5.18	ER70S-G
JIS	Z3312	W49 A 3
EN	636-A	W 42 3 W0
GB	T 8110	ER50-G

Shielding Gas: Ar

### Applications and Features

- (1) TG-50 is suitable for welding mild steel and 490N/mm<sup>2</sup> grade steel in butt joint/ H-fillet welding of high pressure pipes for ship-building, petro-chemistry and power plants.
- (2) Ideal for GTAW with Argon in the root pass of butt joints.

### Welding Instruction

Please refer to Appendix C.

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

C	Si	Mn	P	S
0.050	0.83	1.26	0.015	0.012

### Typical Mechanical Properties of Weld Metal

Tensile Strength N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	Yield Strength N/mm <sup>2</sup> (kgf/mm <sup>2</sup> )	Elongation %	Charpy V-Notch	
			°C	J (kgf -m)
560(57.1)	470(48.0)	31	0	190(19.4)
			-30	170(17.3)

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

Diameter (mm)	1.2	1.4	1.6	2.0	2.4	2.6	3.2	4.0	4.8	5.0
Length (mm)	1000									