

ER70S-6

TIG Rod for High Tensile Steel

AWS A5.18 ER70S-6
GB/T 39280 W49A3 6(ER50-6)

Welding Position: F, H, HF, OH, V

Type of Current: DCEP

Features & Applications

ER70S-6(TIG) / CHG-56 is TIG rod for high tensile steel. It is with excellent welding performance, stable arc and smooth welding gap. It is mostly used for multi-pass welding and single-pass welding of carbon steel and low alloy steel with grade of 500MPa (such as bridge, vehicles and mechanical structure and so on).

Chemical Composition of the Wire (%)

	C	Mn	Si	S	P	Ni	Cr	Mo	V	Cu
Standard	0.06-0.15	1.40-1.85	0.80-1.15	≤0.035	≤0.025	≤0.15	≤0.15	≤0.15	≤0.03	≤0.50
Atlantic	0.07	1.47	0.90	0.011	0.012	0.021	0.020	0.007	0.008	0.18

Mechanical properties of Deposited Metal (AW)

	Yield Strength ReH (MPa)	Tensile Strength Rm (MPa)	Elongation A4 (%)	Impact Value (J)	Shield Gas
				-30	100% Argon
Standard	≥400	≥480	≥22	≥47	Purity ≥99.99%
Atlantic	450	550	29	160	

Notice: 1) The wire must be kept in dry condition and keep the package in good condition before welding.

2) The flowrate of the shield gas should be 9L-14L/minute when the current is 100A-120A and it should be 14L-18L / min when the current is 200A-300A. The extension of tungsten electrode should be 3mm-5mm and arc length should be 1mm-3mm. wind speed limit ≤1.0m/s. It is better to fill shield gas on the backside of welded area during welding.

3) The surfaces to be welded must be cleaned away impurities of oil contamination, rust, moisture and so on.

4) The amount of heat input in welding which will affect the mechanical properties and crack resistance of weld metal directly. It should be paid more attention.

5) The welding conditions mentioned above for reference only.