CHG-316L/ER316

Stainless Steel TIG Rod

AWS A5.9 ER316L

BS EN ISO 14343-A-W (19 12 3 L)

BS EN ISO 14343-B-SS316L

JIS Z3321 Y316L

GB/T 4241 H03Cr19Ni12Mo2Si

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

Type of Current: DCEP

Features & Applications

CHG-316L is austenite extra-low carbon stainless steel TIG rod. Its weld metal has good anti-corrosion to acetic acid, phosphoric acid, sulphurous acid, salt, particularly anti-corrosion to chloridion and it has good performance of heat-resisting and crackle-resisting. It is mainly used for welding structures in chemical industry or in power engineering projects that fabricated by stainless steel AISI316, SUS316. Also it can be used for welding high chromium steels that could not be PWHT or for dissimilar steels welding.

Chemical Composition of the Wire (%)

	C	Mn	Si	S	P	Ni	Cr	Mo	Cu
Standard	≤0.03	1.0-2.5	0.30-0.65	≤0.03	≤0.03	11.0-14.0	18.0-20.0	2.0-3.0	≤0.75
Typical	0.025	1.71	0.48	0.009	0.018	11.5	18.54	2.18	0.09

Mechanical properties of Deposited Metal (AW)

	Tensile Strength Rm (MPa)	Elongation A4 (%)	Shield Gas
			100%Ar Purity ≥99.99%
Standard	≥490	≥30	
Typical	580	35	

Notice:

1) Keeping the package of the wire in good condition before welding.
2) To avoid welding defect the shield gas should be pure particularly no moisture in it.
3) The surfaces to be welded must be cleaned away impurities of oil contamination, moisture and so on.
4) The flow rate of the shield gas should be 9L-14L/minute when the current is 100A-120A and it should be 14L-18L/minute when the current is 200A-300A. The extension of tungsten electrode should be 3mm-5mm and arc length 1mm-3mm. wind speed ≤1.0m/s. It is better to fill shield gas on the backside of welded joint in welding.
5) Mechanical properties, crack resistance and appearance of the weld metal are affected by heat input in welding so should pay more attention to it.
6) The welding conditions mentioned above for reference only and it is better to do a welding procedure qualification according to project before put it into formal welding.