

# TL-508

AWS A5.1 E7018  
EN ISO 2560-A-E 42 3 B 3 2 H10  
JIS Z 3211 E4918

## Characteristics and Applications:

TL-508 is a low hydrogen type electrode for the welding of 490N/mm<sup>2</sup> grade high tensile steel. The welding can be done with high deposition rate, good X-ray soundness and mechanical properties. It is especially suitable for nuclear power stations, petroleum chemical plants, and heavy steel plates. Proper base metals such as: structural steel, steel casting, thin plate, steel strip, carbon steel tube, etc..

## Notes on usage:

1. Bake the electrodes at 300-350°C for 60 minutes before using. Take out a batch of half day consumption and keep in the environment at 100~150°C during welding process.
2. Use back-step method to prevent arc starting from blowholes and hold for 3-5 seconds at every end-up.
3. Maintain short arc length. Moving range should be controlled within 3 times of the wire's dia when you are welding with weave method.
4. Do not exceed the range of proper currents. Over heat input might decrease the impact toughness.

## Typical chemical composition of weld metal (wt%):

C	Mn	Si	P	S
0.065	1.30	0.55	0.020	0.008

## Typical mechanical properties of weld metal:

Yield strength MPa(ksi)	Tensile strength MPa(ksi)	Elongation %	Charpy V-Notch J (ft-1bf) -30°C (-20°F)
500(73)	580(84)	28	135(100)

## Welding position:



## Sizes and recommended current range (AC or DC <+>):

Diameter (mm)	2.6	3.2	4.0		5.0
Length (mm)	350	350	350	450	450
Amps	F	80-110	90-130	140-180	170-240
	V&OH	70-100	80-120	120-160	150-180

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