

# TL-508

JIS Z 3212 D5016  
AWS A5.1 E7018  
EN499 E 42 3 B 3 2

## 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 use. 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 and hold for 3-5 seconds at every end-up to prevent arc starting from blowholes.
3. Maintaining short arc length as possible is highly recommended. While welding with weave method, moving range should be controlled within 3 times of the wire's dia.
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
0.08	1.20	0.60	0.020	0.009

## Typical mechanical properties of weld metal

YS (MPa)	TS (MPa)	EL %	CVN , -30°C J
500	580	30	160

## Welding position



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

Diameter (mm)	2.6	3.2	4.0	5.0	
Length (mm)	350	350	450	450	
Amps	F	55-85	90-130	130-180	170-240
	V&OH	50-80	90-120	110-160	150-180

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