

# TL-96B9

AWS A5.5 E9016-B9  
EN ISO 3580-B-E6216-9C1MV  
JIS Z 3223 E6216-9C1MV

## Characteristics and Applications:

TL-96B9 is a low hydrogen type electrode. The weld metal contains 9%Cr-1%Mo and some little Nb, V to improve the creep problem at prolonged high temperature. With the characters of stable arc, little spatter, complete slag covering, it is suitable for welding the steel such a ASTM A213-T91, A335 P91, A387 Gr.91, A182 F91.

## Notes on usage:

1. Clean up the contaminations on the base metal and welding seam so as not to derogate the weld metal quality from particles.
2. Dry the electrodes at 350-400°C for 60 minutes before using.
3. Use back-step method to prevent arc starting from blowholes and hold for 3-5 seconds at every end-up.
4. Maintain short arc length. Moving range should be controlled within 3 times of the wire's dia when you are welding with weave method.
5. Do not exceed the range of recommended current. Over heat input might decrease the impact value.
6. Pre-heat the workpiece at 250~350°C and proceed PWHT according to relevant specifications.

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

C	Mn	Si	P	S	Cr	Mo	Nb	V	N
0.085	0.7	0.25	0.01	0.01	10.3	1.0	0.05	0.20	0.03

## Typical mechanical properties of weld metal:

Yield strength MPa(ksi)	Tensile strength MPa(ksi)	Elongation %	PWHT
580(84)	712(103)	24	760°C x 2hrs

## Welding position:



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

Diameter (mm)	3.2	4.0		5.0
Length (mm)	350	350	450	450
Amps	90-130	140-180		160-220

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