

TL-96B9

LOW HYDROGEN TYPE

AWS A5.5 E9016-B9

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 use.
3. Use back-step method and hold for 3-5 seconds at every end-up to prevent arc starting from blowholes.
4. 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.
5. When the heat input is excessive, the impact value tends to be reduced. Therefore, select proper heat input depending on the required 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	0.60	0.22	0.009	0.009	9.5	1.00	0.04	0.20	0.05

Typical mechanical properties of weld metal

YS (MPa)	TS (MPa)	EL %	PWHT
655	789	20	750°C x 2hr

Welding position



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

Diameter (mm)	2.6	3.2	4.0	5.0
Length (mm)	350	350	450	450
Amps	70-90	90-130	130-180	160-220

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