

TL-86B6

JIS Z 3223 DT2516
AWS A5.5 E8016-B6
EN1599 E CrMo5 B 1 2

Characteristics and Applications:

TL-86B6 is a low hydrogen type electrode. The weld metal contains 5%Cr-0.5%Mo. High tensile strength, good toughness, and good heat resistance can be obtained. It is suitable for all-position welding of 5%Cr-0.5%Mo steel such as ASTM A387 Gr.5 for refineries, petrochemical and electric power plants. Proper base metals are including pipe (ASTM A213-T5, A335-P5), drawing steel (A387-5), forging (A182-F5), etc..

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
0.080	0.75	0.50	0.02	0.01	5.0	0.45

Typical mechanical properties of weld metal

YS (MPa)	TS (MPa)	EL %	PWHT
600	700	23	740°C x 1hr

Welding position



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

Diameter (mm)		3.2	4.0	5.0
Length (mm)		350	450	450
Amps	F	80-130	100-160	160-210
	V&OH	70-110	80-130	-

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