

# TL-86B2

JIS Z 3223 DT2316  
AWS A5.5 E8016-B2  
EN1599 E CrMo1 B 1 2

## Characteristics and Applications:

TL-86B2 is a covered electrode with for low alloy heat-resistant steel with excellent creep resistance. The weld metal contains 1.25%Cr-0.5%Mo that makes the electrodes more suitable for the welding of piping steels (STPA22,23,24 A335-P11, P22), casting steels (A217-WC9), and forging steels (A182-F22, F12 A336-F22), drawing steel (A387Gr22) used at 550°C. Proper base metals are including forging and casting iron, high pressure steel tube for heat transfer, pressure vessel, 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 200~350°C and PWHT at 680~730°C.

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

C	Mn	Si	P	S	Cr	Mo
0.08	0.60	0.45	0.015	0.010	1.20	0.50

## Typical mechanical properties of weld metal

YS (MPa)	TS (MPa)	EL %	PWHT
530	630	28	690°Cx1hr

## 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	90-140	140-190	190-240
	V&OH	80-120	120-160	-

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