

TL-110

(for DC)

JIS Z 3212 D8015
AWS A5.5 E11015-G
EN 757 E 62 2 2NiMo B T 22

Characteristics and Applications:

TL-110 (for DC) is a low hydrogen type electrode for all-position welding of 760N/mm² grade high tensile steel. Good mechanical properties and good crack resistance are obtained. Good mechanical properties and good crack resistance can be obtained. It is suitable for bridge, offshore structure, high tensile steel welding for construction machinery, while in welding heat treatable low alloy steel (such as SCM21/4 chrome-molybdenum steel · SNCM8 Nickel Chromium Molybdenum Steel, etc.), due to high content of carbon, pre-heating of thick plate, maintenance of inter-pass temperature and slow cool-down are sometimes required according to base metal type.

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 and keep at 100-150°C before use.
3. When the heat input is excessive, the impact value tends to be reduced. Therefore, select proper heat input depending on the required impact value.
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. Use back-step method and hold for 3-5 seconds at every end-up to prevent arc starting from blowholes.
6. Preheating the plates at 100-150°C before welding.

Typical chemical composition of weld metal (wt%)

C	Mn	Si	P	S	Ni	Mo	Cr
0.08	1.10	0.35	0.02	0.008	2.20	0.47	0.30

Typical mechanical properties of weld metal

YS (MPa)	TS (MPa)	EL %
680	790	22

Welding position



Sizes and recommended current range (DC <+>)

Diameter (mm)	3.2	4.0	5.0
Length (mm)	350	450	450
Amps	F	90-130	130-180
	V&OH	80-120	110-160
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