

TC-70A1

AWS A5.5 E7010-A1

Characteristics and Applications:

TC-70A1 is a high cellulose type electrode for DC(+) welding. The welding can be done in all positions with good crack resistance, deep penetration, stable arc, and excellent weldability when the welding condition is difficult due to narrow space or other reasons. It is especially designed for welding of the pipes, high pressure pipes, oil tanks, and boilers due to its good X-ray soundness.

Notes on Usage:

1. Dry the electrodes at 70-80°C for 30-60 minutes before use.
2. It is recommended to take vertical-down or small weave method welding with lower currents.
3. Pre-heat the workpiece at 100~200°C and PWHT at 620~680°C.
4. Use DC(+) polarity.

Typical chemical composition of weld metal (wt%)

C	Mn	Si	P	S	Mo
0.010	0.30	0.15	0.014	0.01	0.50

Typical mechanical properties of weld metal

YS (MPa)	TS (MPa)	EL %	PWHT
480	560	28	620°Cx1hr

Welding position



Sizes and recommended current range (DC <+>)

Diameter (mm)		2.6	3.2	4.0	5.0
Length (mm)		350	350	350	350
Amps	F	50-80	70-120	110-160	150-200
	V&OH	40-70	70-110	90-150	120-180

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