

# TC-70A1

AWS A5.5 E7010-A1  
JIS Z 3223 E4910-1M3

## Characteristics and Applications:

TC-70A1 is a high cellulose type electrode for DC(+) welding. The welding can work 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 60-70°C for 30 minutes before using.
2. Lower current is recommended. Better to use straight or small weaving method for vertical-down position.
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
0.09	0.35	0.12	0.010	0.01	0.50

## Typical mechanical properties of weld metal:

Yield strength MPa(ksi)	Tensile strength MPa(ksi)	Elongation %	PWHT
510(74)	610(88)	28	620°Cx1hr

## Welding position:



## Sizes and recommended current range ( DC<+>):

Diameter (mm)	2.6	3.2	4.0	4.8	
Length (mm)	350	350	350	350	
Amps	F	60-80	80-120	120-160	150-200
	V&OH	50-70	80-110	90-150	120-180

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