

# TC-11

JIS Z 3211 D4311  
AWS A5.1 E6011  
EN499 E 42 2 C 12

## Characteristics and Applications:

TC-11 is a cellulose type electrode. It has deep penetration, stable arc, no slag inclusion, good porosity resistance and slag removability due to the gas pressure generated from the electrode coating while welding. It has excellent performance in vertical and overhead positions on root pass welding especially on X-ray result. It is suitable for heat transfer pipes, oil tanks, ships, and boilers.

## Notes on Usage:

1. Use lower currents.
2. Dry the electrodes at 60°C for 30-60 minutes since high cellulose type electrode is easy to get moisture.

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

C	Mn	Si	P	S
0.12	0.40	0.18	0.015	0.01

## Typical mechanical properties of weld metal

YS (MPa)	TS (MPa)	EL %	CVN J	
			0°C	-30°C
430	500	26	80	47

## Welding position



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

Diameter (mm)	2.6	3.2	4.0	4.8
Length (mm)	350	350	350	350
Amps	60-80	80-130	110-160	140-200

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