

# TWE-811Ni2

AWS A5.29 E81T1-Ni2C  
EN ISO 17632-A-T 46 4 2Ni P C1 1 H10

## Characteristics and Applications:

TWE-811Ni2 is a titania type flux-cored wire for all-position MAG welding. It provides good weldability with smooth bead appearance, less spatter and stable arc as well as good impact properties down to  $-40^{\circ}\text{C}$ .

It is suitable for welding of  $590\text{ N/mm}^2$  high tensile strength steel on construction machinery, structures, bridges, storage tanks and piping.

## Notes on usage:

1. Must pre-heating at  $50\sim 150^{\circ}\text{C}$  varied on steels, plate thickness and restraint.
2. Mechanical properties might fall when heat input is over  $35\text{J/cm}$ . Therefore, perform welding with lower welding current and heat input.
3. Maintain inter-pass temperature under  $150^{\circ}\text{C}$  in multi-pass welding to keep excellent mechanical properties.  
Use 99.8% or higher purity of  $\text{CO}_2$  Gas.
4. Use DC(+) polarity.
5. Keep dry during storage and delivery.

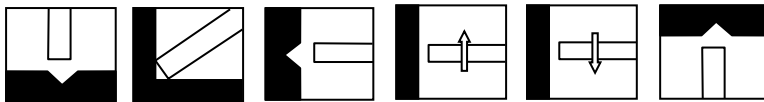
## Typical chemical composition of weld metal (wt%) :

C	Mn	Si	P	S	Ni
0.04	1.10	0.35	0.012	0.008	2.45

## Typical mechanical properties of weld metal:

Yield strength MPa(ksi)	Tensile strength MPa(ksi)	Elongation %	Charpy V-Notch J (ft-lbf) $-40^{\circ}\text{C}$ ( $-40^{\circ}\text{F}$ )
540(78)	630(91)	26	50(37)

## Welding position:



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

Stick out:15-25(mm), flow rate:20-25(l/min):

Position	Diameter(mm)	1.2	1.6
	F、HF	180-300A / 26V-36V	200-350A / 24V-38V
VU、OH	150-220A / 24V-28V	160-220A / 24V-28V	

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