

# 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°C.

It is suitable for welding of 590 N/mm<sup>2</sup> high tensile strength steel on construction machinery, structures, bridges, storage tanks and piping.

## Notes on usage:

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

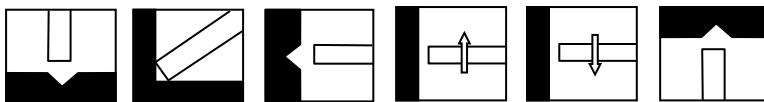
## Typical chemical composition of weld metal (wt%) :

	C	Mn	Si	P	S	Ni
AWS	≤0.12	≤1.50	≤0.80	≤0.030	≤0.030	1.75-2.75
EN ISO	-	≤1.4	-	-	-	1.8-2.6
Typical value	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°C (-40°F)
AWS	≥470(68)	550-690(80-100)	≥19	≥27(20)
EN ISO	≥460(67)	530-680(77-99)	≥20	≥47(35)
Typical value	540(78)	630(91)	26	95(70)

## 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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