

# TWE-711Ni

AWS A5.20 E71T- 1C-J/ E71T-9C-J  
EN ISO 17632-A-T 46 4 P C1 1 H10  
JIS Z 3313 T 49 4 T1-1 C A-U

## Characteristics and Applications:

TWE-711Ni is a gas-shielded flux cored wire designed for mild steel and 490N/mm<sup>2</sup> high tensile steel. It is suitable for all position welding. It provides stable arc, less spatter, easy slag removable, and excellent X-Ray inspection. It provides good low-temperature impact value due to 0.4%Ni in weld metal. The typical applications include shipbuilding, vessels, piping etc.

## Notes on usage:

1. Use (DC+) polarity.
2. Use CO<sub>2</sub> as shielding gas.
3. To get desired impact value, you must control welding heat input, as excessive heat input would decrease notch toughness.
4. Keep the product dry, while it is stored or delivered.

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

	C	Mn	Si	P	S	Ni
AWS	≤0.12	≤1.75	≤0.90	≤0.03	≤0.03	≤0.50
EN ISO	-	≤2.0	-	-	-	≤0.5
Typical value	0.04	1.30	0.33	0.015	0.009	0.42

## 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	≥390(58)	490-670(70-95)	≥22	≥27(20)
EN ISO	≥460(67)	530-680(77-99)	≥20	≥47(35)
Typical value	565(82)	600(87)	29	100(74)

## Welding position:



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

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

Position	Diameter (mm)	1.2	1.6
F, HF	160A~280A / 24V~33V	180A~300A / 24V~36V	
VU, OH	150A~220A / 24V~28V	160A~230A / 24V~28V	
VD	230A~280A / 28V~33V	250A~300A / 24V~30V	
H	200A~260A / 26V~30V	220A~280A / 23V~29V	

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