

TWE-711Ni

AWS A5.20 E71T- 1CJ/ E71T-9CJ
EN ISO 17632-A-T 46 4 P C 1 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/mm² 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 CO₂ as shielding gas.
3. To get desired impact value, your must control welding heat input, as excessive heat input would decrease notch toughness.
4. Keep the product dry, while it is stored or delivered.

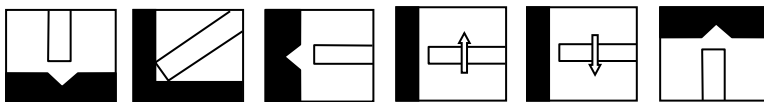
Typical chemical composition of weld metal (wt%):

| | 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 | 490(71) | 560(81) | 31 | 80(59) |

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 |
| 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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