

Flux Cored Wire for Low Temperature Alloy

KFX-81TN

Classification

| | |
|------------------|------------------------|
| AWS A5.29/A5.29M | E81T1-Ni1C/E551T1-Ni1C |
| JIS Z3313 | T553T1-1CA-N2 |
| EN ISO 17632-A | T46 3 1Ni P C1 1 H5 |
| GB T17493 | E551T1-Ni1C |

Shielding Gas: 100% CO₂

Applications and Features

- (1) KFX-81TN is suitable for welding 550N/mm² grade steel.
- (2) Excellent toughness due to 1% Ni.
- (3) Ideal for welding pressure vessel, steel structure, offshore structure, tank and pipeline.

Welding position



Welding Instruction

Please refer to Appendix D.

Typical Chemical Composition of Weld Metal (wt%)

| C | Si | Mn | P | S | Ni |
|------|------|------|-------|-------|------|
| 0.03 | 0.30 | 1.33 | 0.018 | 0.006 | 0.90 |

Typical Mechanical Properties of Weld Metal

| Tensile Strength | Yield Strength | Elongation | Charpy V-Notch | |
|-------------------|-------------------|------------|----------------|-----|
| N/mm ² | N/mm ² | % | °C | J |
| 623 | 584 | 28 | -30 | 160 |
| | | | -40 | 121 |

Size and Suggested Operating Range (DC+)

| Diameter (mm) | 1.2 | 1.4 | 1.6 |
|---------------|-----------------|-----------------|-----------------|
| F/HF | 140~300A/23~36V | 150~350A/22~34V | 200~450A/28~42V |
| H | 140~280A/22~33V | 150~280A/22~32V | 220~280A/23~29V |
| V-up/OH | 140~220A/22~28V | 150~230A/22~28V | 160~280A/22~28V |
| V-down | 230~280A/28~33V | 250~300A/28~32V | 250~320A/28~32V |