| Stick Electrode for High Tensile Strength Steel |                |               |             |  |  |
|---|----------------|---------------|-------------|--|--|
|   | Classification |               |             |  |  |
| KL-50V  |                | SA 5.1/A 5.1M | E7048/E4948 |  |  |
|   |                | Z3211         | E4948       |  |  |
|   | EN             | 2560-A        | E42 3 B 1 1 |  |  |
| Type of coating: Iron powder low hydrogen type  | GB             | T5117         | E5048       |  |  |

#### **Applications and Features**

- (1) Suitable for vertical downward welding of 490N/mm<sup>2</sup> grade steel.
- (2) Easy control of weld puddle, low spatters, good slag removal and smooth bead, good penetration and X-ray soundness.
- (3) Good mechanical properties of weld metal, crack resistance and high deposition rate.
- (4) Applicable for ship building, bridge and steel structures.

### Welding position



### Welding Instruction

Please refer to Appendix A.

## Typical Chemical Composition of Weld Metal (wt%)

| С    | Si   | Mn   | Р     | S     |
|------|------|------|-------|-------|
| 0.08 | 0.50 | 1.01 | 0.012 | 0.008 |

# **Typical Mechanical Properties of Weld Metal**

| Tensile Strength | Yield Strength | Elongation | Charpy V-Notch |            |
|------------------|----------------|------------|----------------|------------|
| N/mm²            | N/mm²          | %          | C              | J          |
| 560              | 485            | 31         | 0<br>-29       | 208<br>142 |

# Size and Suggested Operating Range (AC or DC+)

| Diamet         | er (mm) | 3.2     | 4.0     | 5.0     | 6.0     |
|----------------|---------|---------|---------|---------|---------|
| Current<br>(A) | V-down  | 110~160 | 140~210 | 220~270 | 300~350 |

