# TL-108G

AWS A5.5 E10018-G
EN ISO 18275-A-E 62 5 Z B 1 2
JIS Z 3211 E6916-G

## Characteristics and Applications:

TL-108G is an iron powder low hydrogen type, 690N/mm$^2$ grade high tensile steel electrode. Excellent crack resistance, good mechanical properties and well bead appearance can be obtained. It is provided with good arc and easy slag removal. It is also used for build-up welding before hardfacing. Proper base metals also include forging cast iron, structural steel（HT70）, pressure vessel（ASTM A225 Gr. C）, carbon steel plate for mechanical fabrication (S45C), SAE 1345, etc..

## Notes on usage:

1.Dry the electrodes at 350-400℃ for 60 minutes and keep at 100-150℃ before using.
2.Take the backstep method to prevent blowholes at the arc starting.
3.Keep the arc as short as possible.
4.Preheat the plates at 100~150℃ before welding.

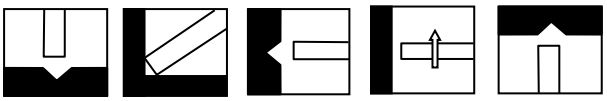
## Typical chemical composition of weld metal (wt%):

| | C | Mn | Si | P | S | Ni | Mo | Cr | V |
|---|---|---|---|---|---|---|---|---|---|
| AWS | - | ≧1.00 | - | ≦0.03 | ≦0.03 | ≧0.50 | ≧0.20 | - | - |
| EN ISO | - | - | - | - | - | - | - | - | - |
| Typical value | 0.065 | 1.50 | 0.45 | 0.020 | 0.007 | 2.0 | 0.35 | 0.01 | 0.014 |

## Typical mechanical properties of weld metal:

| | Yield strength MPa(ksi) | Tensile strength MPa(ksi) | Elongation % | Charpy V-Notch J (ft-lbf) -50°C (-60°F) |
|---|---|---|---|---|
| AWS | ≧600(87) | ≧600(100) | ≧16 | - |
| EN ISO | ≧620(90) | ≧690-890(100-129) | ≧18 | ≧47(35) |
| Typical value | 710(103) | 800(116) | 20 | 70(52) |

## Welding position:



## Sizes and recommended current range (AC or DC＜+＞):

| Diameter (mm) | | 3.2 | 4.0 | 5.0 |
|---|---|---|---|---|
| Length (mm) | | 350 | 450 | 450 |
| Amps | F | 120-150 | 160-200 | 180-240 |
| | V&OH | 90-110 | 130-150 | - |

COVERED ELECTRODES



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