TN-58

AWS A5.5 E8018-C3 EN ISO 2560-A-E 46 4 1Ni B 1 2 JIS Z 3211 E5518-N2

Characteristics and Applications:

TN-58 is an iron powder low hydrogen electrode for the welding of low temperature service steel in all positions. The weld metal contains 1.0%Ni. It is suitable for the welding of LPG tanks. The welding can be done with good X-ray soundness, high deposition rate, and good impact value at -40 . Proper base metals are also including high-carbon steel, low Manganese alloy steel, 540~610N/mm² high tensile steel, cast iron, steel pipe for low temperature service, pressure vessel, ASTM A225 Gr D/A333 Gr1&6/A607 Gr60/A707 Gr.L5.L6, etc..

Notes on usage:

- 1. Be sure to clean up the contaminations on the base metal and welding seam so as not to derogate the weld metal quality from particles.
- 2. Maintain short arc length. Moving range should be controlled within 3 times of the wire's dia when you are welding with weave method.
- 3. Dry the electrodes at 350~400 for 60 minutes before use. Take out a batch of half day consumption and keep at 100~150 during welding process.
- 4. Do not exceed the range of recommended current. Over heat input might decrease the impact value.
- 5. Pre-heat at 50~100 while in welding thick plate.

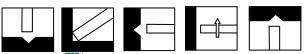
Typical chemical composition of weld metal (wt%):

| С | Mn | Si | Р | S | Ni |
|------|------|-----|-------|-------|-----|
| 0.07 | 0.90 | 0.5 | 0.018 | 0.007 | 1.0 |

Typical mechanical properties of weld metal:

| Yield strength MPa(ksi) | Tensile strength MPa(ksi) | Elongation % | Charpy V-Notch J (ft-lbf) -40°C (-40) |
|----------------------------|------------------------------|-----------------|--|
| 520(75) | 600(87) | 30 | 130(96) |

Welding position:



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

| Diameter (mm) | | 3.2 | 4.0 | 5.0 |
|---------------|------|---------|---------|---------|
| Length (mm) | | 350 | 450 | 450 |
| | F | 100-140 | 140-180 | 180-230 |
| Amps | V&OH | 80-110 | 130-160 | - |

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^{*} The information contained or otherwise referenced herein is presented only as "typical" w

