TN-38

AWS A5.5 E8018-C2
EN ISO 2560-A-E 46 6 3Ni B 1 2
JIS Z 3211 E5518-N7

Characteristics and Applications:

TN-38 is an iron-powder low hydrogen electrode for the welding of low temperature service steel. It provides good impact value at -75℃. The weld metal contains 3.5%Ni. It is suitable for the welding LPG tanks or 3.5%Ni steel for low temperature service. The welding can produce good X-ray soundness, high deposition rate. Proper base metals are also including high-carbon steel, low Manganese alloy steel, 540~610N/mm^2 high tensile steel, cast iron, steel pipe for low temperature service, pressure vessel, ASTM A333 Gr.3.4.7.9/A336 Gr.F31/A350 Gr.LF3/A352 Gr.LC3/ A420 Gr.WPL3/A469/A470/A572/A707 Gr.L7.L8/A757 Gr.B3N.B3Q/A765 Gr.3, 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 in the environment 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℃ and PWHT at 600~620℃.

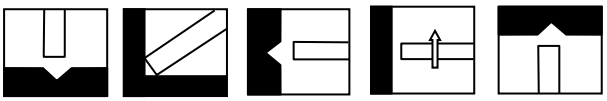
Typical chemical composition of weld metal (wt%):

C	Mn	Si	P	S	Ni
0.055	0.70	0.40	0.013	0.010	3.40

Typical mechanical properties of weld metal:

Yield strength MPa(ksi)	Tensile strength MPa(ksi)	Elongation %	Charpy V-Notch J (ft-lbf) -75°C (-100°F)	PWHT
580(84)	660(96)	28	35(26)	605℃x1hr

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	100-140	140-180	180-230
	V&OH	80-110	130-160	-

COVERED ELECTRODES

TIENTAI
AN ILLINOIS TOOL WORKS COMPANY
No.6, Kaifa 4th Rd., Rende Dist., Tainan City 717, Taiwan
TEL:886-6-2663721 /FAX:886-6-2664301
E-mail:twtrad@itwweld.com
http://www.tientai.com