TS-318

AWS A5.4 E318-16
EN ISO 3581-B-ES318-16
JIS Z 3221 ES318-16

Characteristics and Applications:

The weld metal of TS-318 is a modified 316 stainless steel containing Nb. It provides good corrosion resistance to sulfuric acid and organic acid due to its Mo and Nb content. It is suitable for chemical vessels, pipeline, and specifically suitable for steel plate welding of AISI 316Ti / SUS 316-Ti.

Notes on usage:

1. Clean up the contaminations on the base metal, groove and pass to pass with stainless steel brush.
2. Maintain short arc length. Moving range should be controlled within 2.5 times of the wire's dia when you are welding with weave method..
3. Dry the electrodes at 250~300℃ for 60 minutes before using. Take out consumables for half day consumption and keep in the environment at 100~150℃ during welding process.
4. Use lower current to prevent from crack and minimize base metal dilution.

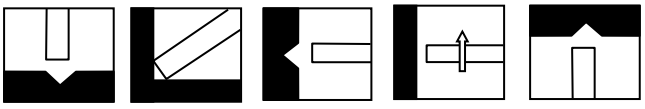
Typical chemical composition of weld metal (wt%):

	C	Mn	Si	P	S	Cr	Ni	Mo	Nb
AWS	≦0.08	0.5-2.5	≦1.00	≦0.04	≦0.03	17.0-20.0	11.0-14.0	2.0-3.0	≧6xC
EN ISO	≦0.08	0.5-2.5	≦1.00	≦0.04	≦0.03	17.0-20.0	11.0-14.0	2.0-3.0	6xC-1.00
Typical value	0.025	0.70	0.75	0.04	0.010	18.50	12.00	2.50	0.40

Typical mechanical properties of weld metal:

	Tensile strength MPa(ksi)	Elongation %
AWS	≧550(80)	≧25
EN ISO	≧550(80)	≧20
Typical value	600(87)	41

Welding position:



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

Diameter (mm)		2.6	3.2	4.0	4.8
Length (mm)		300	350	350	350
Amps	F	60-90	80-130	130-170	180-210
	V&OH	50-70	70-110	100-130	-

COVERED ELECTRODES

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