TS-316H

AWS A5.4 E316/E316H-16
EN ISO 3581-B-ES316H-16
JIS Z 3221 ES316-16

Characteristics and Applications:

The weld metal of TS-316H contains proper quantity of ferrite in austenitic structure. It provides higher strength and creep strength at high temperature due to higher carbon content. The corrosion resistance against acetic acid, sulphuric acid and phosphoric acid and crack resistance at high temperature can be improved by Mo in TS-316H. It is suitable for chemical plants and LNG made by AISI 316H, SUS 316H, ASTM A813 TP316H, ASTM A826 TP316 etc. Base metal for TS-316H: stainless thin plate, pipe and pressure vessel plate.

Notes on usage:

1. Be sure to 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 a batch of 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.

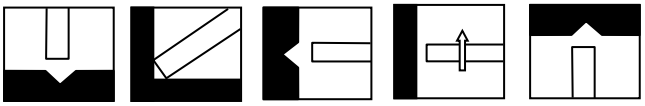
Typical chemical composition of weld metal (wt%):

	C	Mn	Si	P	S	Cr	Ni	Mo
AWS	0.04-0.08	0.5-2.5	≦1.00	≦0.04	≦0.03	17.0-22.0	11.0-14.0	2.0-3.0
EN ISO	0.04-0.08	0.5-2.5	≦1.00	≦0.04	≦0.03	17.0-22.0	11.0-14.0	2.0-3.0
Typical value	0.05	1.00	0.62	0.035	0.010	18.30	12.00	2.20

Typical mechanical properties of weld metal:

	Tensile strength MPa(ksi)	Elongation %
AWS	≧520(75)	≧30
EN ISO	≧520(75)	≧25
Typical value	580(84)	40

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	-

* The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and TienTai Electrode Co., Ltd. expressly disclaims any liability incurred from any reliance thereon. Typical data is obtained when welded and tested in accordance with AWS specification. Other tests and procedures may produce different results. No data is to be construed as recommendation for any welding condition or technique not controlled by TienTai Electrode Co., Ltd.

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