

TS-308/308L

AWS A5.4 E308/E308L-16
EN ISO 3581-B-ES5308-16/
EN ISO 3581-B-ES5308L-16
JIS Z 3221 ES308L-16

Characteristics and Applications:

The weld metal of TS-308/ TS-308L is a 19Cr-10Ni austenite microstructure containing limited δ ferrite. The product has excellent performances in slag release, weld bead appearance, weldability, corrosion resistibility at high temperature. It is suitable for the welding of AISI-304 steel, AISI-301 steel and AISI-302 steel in all positions. Proper base metal for TS-308/308L: stainless thin plate, hoop, pipe, seamless pipe, thermal pipe, pressure vessel plate, steel bar, forge.

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°C for 60 minutes before using. Take out consumables for half day consumption and keep in the environment at 100~150°C during welding process.
4. Use lower current to prevent from cracking and minimize base metal dilution.

Typical chemical composition of weld metal (wt%):

	C	Mn	Si	P	S	Ni	Cr	Mo	Cu
AWS	≤0.04	0.5-2.5	≤1.00	≤0.04	≤0.03	9.0-11.0	18.0-21.0	≤0.75	≤0.75
EN ISO	≤0.04	0.5-2.5	≤1.00	≤0.04	≤0.03	9.0-12.0	18.0-21.0	≤0.75	≤0.75
Typical value	0.022	0.85	0.62	0.03	0.010	9.6	18.8	0.07	0.10

Typical mechanical properties of weld metal:

	Tensile strength MPa(ksi)	Elongation %
AWS	≥520(75)	≥30
EN ISO	≥520(75)	≥25
Typical value	580(84)	45

Welding position:



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

Diameter (mm)	2.0	2.6	3.2	4.0	4.8	
Length (mm)	250	300	350	350	350	
Amps	F	40-60	60-90	80-130	130-170	160-210
	V&OH	30-50	50-80	70-110	100-130	-

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