

TS-310Mo

AWS A5.4 E310Mo-16
EN ISO 3581-B ES310Mo-16
JIS Z 3221 ES310Mo-16

Characteristics and Applications:

Heat resistance corrosion and toughness of TS-310Mo are excellent. The weld metal is a full austenite structure containing 25%Cr-20%Ni. It is not necessary to pre-heat and post-weld heat treatment. It is suitable for the dissimilar metals welding, low-temperature service stainless steel, AISI 310S steel, mild steel, and Cr-Mo steel.

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°C for 60 minutes before using. Take out a batch of half day consumption and keep in the environment at 100~150°C during welding process.
4. Due to the austenitic matrix containing intensive Cr, Ni, use lower current and maintain temperature under 150°C to prevent from cracker caused by high temperature.

Typical chemical composition of weld metal (wt%):

	C	Mn	Si	P	S	Cr	Ni	Mo
AWS	≤0.12	1.0-2.5	≤0.75	≤0.03	≤0.03	25.0-28.0	20.0-22.0	2.0-3.0
EN ISO	≤0.12	1.0-2.5	≤0.75	≤0.03	≤0.03	25.0-28.0	20.0-22.0	2.0-3.0
Typical value	0.10	1.80	0.30	0.030	0.010	25.1	20.5	2.40

Typical mechanical properties of weld metal:

	Tensile strength MPa(ksi)	Elongation %
AWS	≥ 550(80)	≥ 30
EN ISO	≥ 550(80)	≥ 28
Typical value	600(87)	31

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	-

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