

TS-309Mo/ TS-309LMo

AWS A5.4 E309Mo/E309LMo-16
EN ISO 3581-B ES309Mo-16/
EN ISO 3581-B ES309LMo-16
JIS Z 3221 ES309LMo-16

Characteristics and Applications:

TS-309Mo/TS-309LMo is superior to TS-309/309L in crack resistance and corrosion resistance at the high temperature due to higher Mo content. Low carbon content of weld metal makes it suitable for dissimilar metal welding of joining mild steel to stainless steel and reducing inter-granular corrosion.

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 whiling in welding dissimilar metals or root pass of clad steel.

Typical chemical composition of weld metal (wt%):

	C	Mn	Si	P	S	Cr	Ni	Mo	Cu
AWS	≤0.04	0.5-2.5	≤1.00	≤0.04	≤0.03	22.0-25.0	12.0-14.0	2.0-3.0	≤0.75
EN ISO	≤0.04	0.5-2.5	≤1.00	≤0.04	≤0.03	22.0-25.0	12.0-14.0	2.0-3.0	≤0.75
Typical value	0.025	0.90	0.65	0.034	0.016	22.5	13.50	2.2	0.12

Typical mechanical properties of weld metal:

	Tensile strength MPa(ksi)	Elongation %
AWS	≥ 520(75)	≥ 30
EN ISO	≥ 520(75)	≥ 25
Typical value	630(91)	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	-

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