

ST-309MoL



❖ Specification

AWS A5.9

ER309LMo

JIS

Z3321 YS309LMo

EN

ISO 14343-A W 23 12 2 L

❖ Applications

TIG Welding of dissimilar metals such as stainless steels and carbon steels.

❖ Characteristics on Usage

This wire contains a high ferrite level in its austenitic structure thus providing superior heat and corrosion resistance.

ST-309MoL is suitable for the build up on low alloy or mild steel and welding of STS 316, 316L clad steel.

Both bead appearance and weldability are good.

❖ Note on Usage

Use 100% Ar

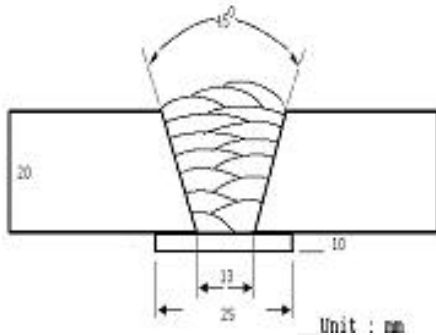
❖ Packing

Dia.	1.6mm (1/16in)	2.0mm (5/64in)	2.4mm (3/32in)	2.6mm (0.10in)	3.2mm (1/8in)
TIG	5kg (11lbs)				



Mechanical Properties & Chemical Composition of All Weld Metal

❖ **Welding Conditions**



[Joint Preparation & Layer Details]

Diameter(mm)	: 2.4mm
Shielding Gas	: 100%Ar
Flow Rate(ℓ /min.)	: 20~25
Amp./ Volt.	: 160~240 /
Pre-Heat(℃)	: R.T.
Interpass Temp.(℃)	: 150 ± 15
Polarity	: DC(-)

❖ **Mechanical Properties of All weld metal**

Consumable	Tensile Test		CVN Impact test Joule (ft·lbs)	
	T.S. MPa (ksi)	EL. (%)	-60℃ (-76°F)	-196℃ (-320.8°F)
ST-309MoL	696 (101)	32	179 (132)	73 (54)

❖ **Chemical Analysis of the wire(wt%)**

Consumable	Chemical Composition (wt%)								
	C	Si	Mn	P	S	Ni	Cr	Mo	Cu
ST-309MoL	0.028	0.47	1.83	0.016	0.001	13.7	23.2	2.22	0.08
AWS A5.9 ER309LMo	≤0.030	0.30 ~0.65	1.0 ~2.5	≤0.030	≤0.020	12.0 ~14.0	23.0 ~25.0	2.0 ~3.0	≤0.30

❖ **Chemical Analysis of All weld metal(wt%)**

Consumable	Chemical Composition (wt%)								
	C	Si	Mn	P	S	Ni	Cr	Mo	Cu
ST-309MoL	0.034	0.50	1.67	0.020	0.002	11.5	18.9	1.71	0.10

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