

AI-1709LMo

Specifications

AWS/ASME ER309LMo (Ar+1-2%O₂)

AS/NZS ISO 14343 B SS309LMo (Ar+1-2%CO₂)

Description and Applications

Weld metal is austenite structure with 23%Cr-13%Ni-2%Mo.

Better strength and corrosion resistance at high temperature than 309L due to additional Mo content.

Good crack resistance due to moderate ferrite content.

It is suitable for welding dissimilar metals (carbon steel and stainless steel)

Typical Weldmetal Analysis

C	Mn	Si	Cr	Ni	P	S	Mo
0.025	1.88	0.36	24.41	13.32	0.013	0.009	2.44

Mechanical Properties of Weldmetal

	As Welded
Tensile Strength	620 (63.2)
Elongation	39
Yield Strength	440 (44.9)
Shielding Gas	Ar + 1-3% O ₂ or equivalent Ar + 2-5% CO ₂ or equivalent

Welding Parameters

Use Ar with 1-2% O₂ for high current spray transfer welding

Use Ar with 1-2% CO₂ for low current short circuit transfer welding

Diameter (mm)	Gas	Volts	Amps
0.9	Ar 1-2% O ₂	24-30	170-260
0.9	Ar 2-5% CO ₂	15-21	60-140
1.2	Ar 1-2% O ₂	24-30	200-300
1.2	Ar 2-5% CO ₂	17-22	100-210

Welding Positions

(1G, 1F) Downhand/flat position, (2F) Horizontal position, (2G) Horizontal vertical position

Disclaimer

All figures in this datasheet should be considered indicative only. No guarantee is made as to their accuracy.

All figures subject to change without notice. Batch analysis is available for all products sold. Should you require any further information, please contact us at sales@alloysint.com.au

