



# Techalloy 309/309L

## Description

Techalloy 309/309L is used for the welding of similar alloys in wrought or cast form. It is mostly used for welding dissimilar materials such as mild steel to stainless steel, as well as for a barrier layer in stainless overlays.

## Specifications & Approvals:

AWS A5.9 ER309/309L

UNS 30983

UNS 30980

ISO 14343:2009 (23 12 L)

CWB

## Typical Chemical Composition

C	Mn	Si	Cr	Mo	Ni	Cb	N	S	P	Cu	FN (WRC)
.021	1.75	.51	23.40		12.70			.006	.014		12

## Typical Mechanical Properties

Tensile Strength	85,000 PSI	590 MPA
Yield Strength	58,000 PSI	400 MPA
Elongation	36%	

## Welding Parameters

	Shielding	Gas Flow	Diameter	Voltage	Amperage
Mig Welding	98/99% Argon + 2/1% Oxygen 97% Argon + 3% CO2	30 to 50 CFH	.035" (0.9mm)	26 to 29	160/210
			.045" (1.14mm)	28 TO 32	180/250
			.062" (1.6mm))	29 TO 33	200/280
Tig Welding	100% Argon				
Sub Arc Welding	Suitable flux may be used		3/32" (2.5mm)	28 to 33	275/350
			1/8" (3.14mm)	29 TO 32	350/450
			5/32" (4.0mm)	30 TO 33	400/550

## Standard Packages:

Mig Wire– 33# wire basket	Tig Wire– 10# tube/30# Master Carton	SAW– 60# Coil
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