

INCO-WELD® 309L is a premium product used in the welding of dissimilar materials.

### \*Typical Chemical Analysis (%)

Element	%	AWS Requirement
Carbon (C)	0.02	0.03 max
Chromium (Cr)	24.0	23.0-25.0
Nickel (Ni)	13.0	12.0-14.0
Molybdenum (Mo)	0.2	0.75 max
Manganese (Mn)	1.75	1.0 to 2.5
Silicon (Si)	0.5	0.30-0.65
Phosphorus (P)	0.002	0.03 max
Sulphur (S)	0.001	0.03 max
Copper (Cu)	0.1	0.75 max

### \*Typical Mechanical Properties

Tensile Strength	87,000 psi
Yield Strength	56,000 psi
Elongation	36%
Charpy V-Notch ( RT )	92 ft.lb

### Approvals

AWS A5.9 ER309L  
ASME SFA 5.9  
Canadian Welding Bureau

### \*Typical GMAW welding Parameters

	Wire Diameter	Amperage	Voltage	Shielding
Short Circuit	.035"	80-160	14-22	90% He + 7½% Ar + 2½ O2
	.045"	110-220	15-23	90% He + 7½% Ar + 2½ O2
	.062"	130-250	16-23	90% He + 7½% Ar + 2½ O2
Spray Transfer	.035"	175-250	23-26	Ar + 2% O2
	.045"	225-325	24-29	Ar + 2% O2
	.062"	300-425	26-30	Ar + 2% O2

### Ordering Information

GTAW		GMAW		SAW	
Diameter	Part Number	Diameter	Part Number	Diameter	Part Number
1/16	IA309L062T	.030	IA309L030M	3/32	IA309L062S
3/32	IA309L093T	.035	IA309L035M	1/8	IA309L125S
1/8	IA309L125T	.045	IA309L045M	5/32	IA309L156S
5/32	IA309L156T	1/16	IA309L062M		
10 lb. Tubes in 1 m Lengths		30 lb. Spools / Wire Baskets		60 lb. Cpils	

\*All information listed is provided as typical values and may differ from actual results due to variations in weld procedures.  
C.P.G. disclaims any liability resulting from reliance on any of the above values.