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MIG AND TIG STAINLESS STEEL WIRES.

Swiss Alloys® 309/309L

SPECIFICATIONS

AWS 5.9
ASME SFA 5.9
EN ISO 14343 EN steel no. 23 12 L

CLASSIFICATIONS

AWS ER309/309L
UNS S30983

DESCRIPTION / APPLICATION

Swiss Alloys ER309L is of similar composition as Swiss Alloys ER309 except for the carbon content being lower than .03%. This lower carbon content reduces the possibility of intergranular carbide precipitation. This increases the resistance of inter- granular corrosion without the use of stabilizers such as columbium (niobium) or titanium. Strength of this low-carbon alloy; however, may not be as great at elevated temperatures as that of the columbium (niobium)-stabilized alloys or ER309. Swiss Alloys ER309L is preferred over Swiss Alloys ER309 for cladding over carbon or low alloy steels, as well as for dissimilar joints that undergo heat treatment.

Typical Chemical Analysis						
C	Cr	Ni	Mo	Mn	Si	P
0.03 max	23.0- 25.0	12.0- 14.0	0.75 max	1.0- 2.5	0.30- 0.65	0.03 Max
S	Cu					
0.03 max	0.75 Max					

TYPICAL MECHANICAL PROPERTIES

Tensile strength: 89,900 psi 620 MPa
Yield strength: 58,000 psi 400 MPa
Elongation: 40%

Approvals CE, DB, TÜV

Typical Welding Parameters of Stainless steel wire

Process	Diameter of Wire	Welding Voltage (V)	Welding Current (A)
TIG	0.80 mm	12 V - 15 V	60 A - 90A
	1.2 mm	13 V - 16 V	80 A - 110 A
	1.6 mm	14 V - 18 V	90 A - 130 A
	2.4 mm	15 V - 20 V	150 A - 220 A
	3.2 mm	15 V - 20 V	150 A - 220 A
MIG	1.0 mm	26 V - 29 V	150 A- 190 A
	1.2 mm	28 V - 32 V	180 A - 220 A
	1.6 mm	29 V - 33 V	200 A - 250 A