

Stainless Steel Electrodes

Alloy: WW309L-16 Class: E309L-16

Conforms to Certification: AWS A5.4 ASME SFA A5.4

Alloy: E309L-16

Weld Process: Shielded Manual Metal Arc

AWS Chemical Composition Requirements

C = 0.04 max	Si = 1.00 max
Cr = 22.0 – 25.0	P = 0.04 max
Ni = 12.0 – 14.0	S = 0.03 max
Mo = 0.75 max	Cu = 0.75 max
Mn = 0.5 - 2.5	

Deposited All Weld Metal Properties %
(Typical) As-Welded

Yield Strength	88,500psi
Tensile Strength	59,000psi
Elongation	36%

Deposited Chemical Composition % (Typical)

C = 0.035	Si = 0.53
Cr = 24.35	P = 0.024
Ni = 12.60	S = 0.021
Mn = 1.58	

Deposited Charpy-V-Notch Impact Properties %

Not Applicable

Recommended Welding Parameters

<u>Diameter</u>	<u>Voltage</u>	<u>Amperage Flat Position</u>	<u>Amperage Vertical & Overhead</u>
3/32	24-28	70-85	65-75
1/8	26-30	85-110	80-90
5/32	28-32	110-140	100-120
3/16	28-32	120-160	110-130

Application

E309L-16 is designed for welding heat resistant base metals of similar compositions. It is also used to weld dissimilar materials and for stainless steel overlays or plain carbon or low-alloy steels.

E309L-16 is preferred to E309-16 for cladding over carbon or low alloy steels, as well as dissimilar joints which undergo heat treatment.

