

Stainless Steel Electrodes

Alloy: WW309-16 Class: E309-16

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

Alloy: E309-16

Weld Process: Shielded Manual Metal Arc

AWS Chemical Composition Requirements

C = 0.15 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	87,500psi
Tensile Strength	59,500psi
Elongation	35%

Deposited Chemical Composition % (Typical)

C = 0.08	Si = 0.52
Cr = 23.50	P = 0.024
Ni = 12.30	S = 0.024
Mn = 1.70	

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

E309-16 is primarily intended for welding heat resistant austenitic Chromium-Nickel steels of similar analysis such as 309 or 309S. Also suitable for joining dissimilar metals such as 18Cr-8Ni stainless steel to mild steel and welding of clad surfaces of steel.

