

Stainless Steel Electrodes

Alloy: WW316-16 Class: E316-16

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

Alloy: E316-16

Weld Process: Shielded Manual Metal Arc

AWS Chemical Composition Requirements

C = 0.08 max	Si = 1.0 max
Cr = 17.0 – 20.0	P = 0.04 max
Ni = 11.0 – 14.0	S = 0.03 max
Mo = 2.0 – 3.0	Cu = 0.75 max
Mn = 0.5 – 2.5	

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

Yield Strength	87,000psi
Tensile Strength	58,000psi
Elongation	36%

Deposited Chemical Composition % (Typical)

C = 0.05	Si = 0.56
Cr = 18.85	P = 0.025
Ni = 12.90	S = 0.024
Mn = 1.70	Mo = 2.35

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

E316-16 electrodes are designed for the welding to type 316 chromium-nickel steel. This alloy contains 2% to 3% molybdenum in addition to sufficient chromium and nickel to render it austenitic. Molybdenum is added to increase the corrosion resistance of the alloy from an attack known as pitting, which is induced by such corrosive metals as sulfuric and sulfurous acids, sulfites, chloride and cellulose solutions.

