

Stainless Steel Electrodes

Alloy: WW505-16

Conforms to Certification: AWS A5.4

Class: E505-16

ASME SFA A5.4

Alloy: E505-16

Weld Process: Shielded Manual Metal Arc

AWS Chemical Composition Requirements

C = 0.10 max	Si = 0.90 max
Cr = 8.0 – 10.5	P = 0.04 max
Ni = 0.40 max	S = 0.03 max
Mn = 1.0 max	Mo = 0.85 – 1.20
Cu = 0.75 max	

Recommended Welding Parameters

Diameter	Voltage	Amperage	
		Flat	Vertical & Overhead
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

Deposited Chemical Composition % (Typical)

C = 0.065	Cr = 9.50	Si = 0.46
Mn = 0.60	P = 0.022	S = 0.023
Mo = 0.98		

Application

E505-16 electrode is used for welding matching composition chrome-moly plate and piping. Preheat and interpass of at least 300°F is required. Post-weld heat treatment is also recommended.

Deposited All Weld Metal Properties %

(Typical) As-Welded

Yield Strength	81,000psi
Tensile Strength	64,000psi
Elongation	23%

Deposited Charpy-V-Notch Impact Properties %

Not Applicable