

Stainless Steel Electrodes

Alloy: WW2553-16 Class: E2553-16

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

Alloy: E2553-16

Weld Process: Shielded Manual Metal Arc

AWS Chemical Composition Requirements

C = 0.06 max	Si = 1.0 max
Cr = 24.0 – 27.0	P = 0.04 max
Ni = 6.5 – 8.5	S = 0.03 max
Mo = 2.9 – 3.9	Cu = 1.5 – 2.5
Mn = 0.5 – 1.5	N = 0.10 – 0.25

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

Yield Strength	112,000psi
Tensile Strength	90,000psi
Elongation	26.5%

Deposited Chemical Composition % (Typical)

C = 0.03	Si = 0.56
Cr = 25.40	P = 0.022
Ni = 7.20	S = 0.022
Mo = 3.10	Cu = 2.00
Mn = 0.95	N = 0.15

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

E2553-16 is a duplex austenitic ferritic stainless steel with controlled ferrite. It can be used for joining duplex stainless to carbon or low alloy steel. Weld metal deposits by 2553 electrodes combine increased tensile strength with resistance to pitting and stress corrosive cracking.

