

Nickel Alloys

Alloy: WWNA22  
 Class: ENiCrMo-10  
 Alloy 22

Conforms to Certification: AWS A5.11  
 ASME SFA A5.11

Alloy: ENiCrMo-10 (Alloy 22)  
 Weld Process: Shielded Metal Arc Weld Process (SMAW)

AWS Chemical Composition Requirements

C = 0.02 max	Cu = 0.50 max
Mn = 1.0 max	Ni = Remainder
Fe = 2.0 – 6.0	Co = 2.5 max
P = 0.03 max	Cr = 20.0 – 22.5
S = 0.015 max	Mo = 12.5 – 14.5
Si = 0.20 max	W = 2.5 – 3.5
V = 0.35 max	Other = 0.50 max

Recommended Weld ParametersAmperage (A)

<u>Diameter of Wire</u>	<u>Voltage (V)</u>	<u>Flat</u>	<u>Vertical and Overhead</u>
3/32 inches (2.4mm)	24 – 28	70 – 85	65 – 75
1/8 inches (3.2mm)	26 – 30	85 – 110	80 – 90
5/32 inches (4.0)	28 – 32	110 – 140	100 – 120
3/16 inches (4.8)	28 – 32	120 – 160	110 – 130

Deposited Chemical Composition % (Typical)

C = 0.014	Mn = 0.35	Si = 0.16
Cr = 21.2	Mo = 13.1	W = 3.3
P = 0.012	S = 0.005	Fe = 3.9
Ni = Balance		

Application

ENiCrMo-10 (Alloy 22) is used for welding wrought or cast products. Can join stainless and nickel alloys or dissimilar corrosion resistant alloys and cladding. Suitable for most applications in the as-welded condition.

Deposited All Weld Metal Properties % (AW)

Tensile Strength	113,000psi
Yield Strength	78,000psi
Elongation	35.5%

Deposited Charpy-V-Notch Impact Properties %

Not applicable

