WELDWIRE COMPANY, INC. **Technical Information**

Nickel Alloys

Alloy: Nickel 99
Class: ENi-CI

Conforms to Certification: AWS A5.15
ASME SFA A5.15

Alloy: ENi-CI (99)
Weld Process: Shielded Metal Arc Weld Process

AWS Chemical Composition Requirements

C = 2.0 max	Fe = 8.0 max
Mn = 2.5 max	Ni = 85.0 min
Si = 4.0 max	Cu = 2.5 max
S = 0.03 max	Al = 1.0 max
Other = 1.0	

Deposited Chemical Composition % (Typical)

C = 0.85	Mn = 0.25	Si = 1.73
Fe = 4.10	Cu = 1.45	Ni = 91.5
S = 0.006	P = 0.014	

Deposited All Weld Metal Properties % (AW)

Tensile Strength	72,500psi
Yield Strength	57,000psi
Elongation	5%

Deposited Charpy-V-Notch Impact Properties %

Not applicable

Recommended Weld Parameters Amperage (A)

Diameter of Wire	Voltage (V)	Flat	Vertical and Overhead
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

Application

Nickel 99 electrode is designed for welding of gray iron castings to themselves, as well as joining them to mild steels or stainless steels. Preheat and interpass of 350ºF minimum is recommended during welding.

If additional information is needed Contact Weldwire Company, Inc. 800-523-1266