



ENICRFE-2

Shanti Metal Supply Corporation ENICRFE-2

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CODE & SPECIFICATION DATA:

AWS A5.21 ASME SFA A5.21

AWS Chemical Composition Requirements	
Element	Composition (%)
Carbon (C)	0.10 max
Copper (Cu)	0.50 max
Manganese (Mn)	1.0 – 3.5
Nickel (Ni)	62.0 min
Iron (Fe)	12.0 max
Cobalt (Co)	0.12 max
Phosphorus (P)	0.03 max
Chromium (Cr)	13.0 – 17.0
Sulfur (S)	0.02 max
Niobium/Tantalum (Cb/Ta)	0.5 – 3.0
Silicon (Si)	0.75 max
Molybdenum (Mo)	0.50 – 2.50

Deposited Chemical Composition % (Typical)	
Element	Composition (%)
Carbon (C)	0.04
Manganese (Mn)	1.75
Silicon (Si)	0.32
Chromium (Cr)	15.5
Molybdenum (Mo)	1.5
Niobium/Tantalum (Cb/Ta)	1.25
Iron (Fe)	8.5
Sulfur (S)	0.006
Phosphorus (P)	0.009
Nickel (Ni)	71.15

Application

Shanti Metal Supply Corporation offers ENiCrFe-2 (Alloy A) electrodes for welding nickel-chromium-iron alloys, dissimilar nickel alloys, and carbon or stainless steel, suitable for cryogenic to 1500°F applications.

Recommended Weld Parameters Amperage (A)			
Diameter of Wire	Voltage (V)	Flat (Amps)	Vertical & Overhead (Amps)
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 (4.0mm)	28 – 32	110 – 140	100 – 120
3/16 inches (4.8mm)	28 – 32	120 – 160	110 – 130

Deposited All Weld Metal Properties % (AW)	
Property	Value
Tensile Strength	89,000 psi
Yield Strength	72,000 psi
Elongation	36%

