



ENiCrFe-3

Shanti Metal Supply Corporation ENiCrFe-3

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CODE & SPECIFICATION DATA:

AWS A5.11 ASME SFA A5.11

AWS Chemical Composition Requirements	
Element	Composition (%)
Carbon (C)	0.10 max
Copper (Cu)	0.50 max
Manganese (Mn)	5.0 – 9.5
Nickel (Ni)	59.0 min
Iron (Fe)	10.0 max
Cobalt (Co)	0.12 max
Phosphorus (P)	0.03 max
Titanium (Ti)	1.0 max
Sulfur (S)	0.015 max
Chromium (Cr)	13.0 – 17.0
Silicon (Si)	1.0 max
Niobium/Tantalum (Cb/Ta)	1.0 – 2.5
Other Elements	0.50 max

Deposited Chemical Composition % (Typical)	
Element	Composition (%)
Carbon (C)	0.03
Manganese (Mn)	6.5
Silicon (Si)	0.42
Chromium (Cr)	15.25
Niobium/Tantalum (Cb/Ta)	1.75
Iron (Fe)	7.4
Sulfur (S)	0.007
Phosphorus (P)	0.011
Nickel (Ni)	68.9

Application

Shanti Metal Supply Corporation offers ENiCrFe-3 (Alloy 182) electrodes for welding nickel-chromium-iron alloys and dissimilar welding with steels or stainless steels.

Deposited All Weld Metal Properties % (AW)	
Property	Value
Tensile Strength	85,000 psi
Yield Strength	54,000 psi
Elongation	35%

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

