

# NICKEL & HIGH NICKEL ALLOYS WELDING WIRES

SUGGESTIONS FOR WELDING NICKEL HIGH NICKEL ALLOYS

Ni ALLOY WELDING CONSUMABLES SUGGESTED SELECTIONS

Ni ALLOY WELDING CONSUMABLES FOR GAS TUNGSTEN WELDING

TIG & MIG WIRE FOR CAST IRON (SILICON BRONZE MAY ALSO BE USED IN SOME CASES)

## MILD & LOW ALLOY STEEL WIRES

PRODUCT

USES

TYPICAL CHEMICAL COMPOSITION OF THE WIRE

MECHANICAL PROPERTIES OF ALL WELD METAL (AS WELDED)

### 55

No AWS Specification

55 is used for TIG and MIG welding of cast iron. This filler metal is extensively employed to overlay the cast iron rolls. It is also used to repair the castings. The weld metal of 55 is harder than that of 99. However, the machining can be accomplished by using carbide tipped tools.

A preheat and interpass temperature of 350°F (175°C) minimum is recommended during welding, without which the weld and heat affected zones could develop cracks.

Carbon	.05
Manganese	.25
Silicon	.15
Iron	43.6
Nickel	55.9

Tensile Strength	89,500 PSI	620 MPA
Yield Strength	62,000 PSI	430 MPA
Elongation		35%

SIZE	PART NO.	PRICE
1/16	N55116	\$29.50
3/32	N55332	\$28.50

36" CUT LENGTHS PRICE PER POUND (CALL FOR SPOOLED WIRE QUOTES)

### 99

AWS A5.15 ERNiC1

99 is used for TIG and MIG welding of cast iron. This wire is extensively employed to repair gray iron casting. It can also be used for overlay and buildup. However, dilution from the casting influences the mechanical properties of the metal. The welds are easily machinable.

A preheat and interpass temperature of 350°F (175°C) minimum is recommended during welding.

Carbon	.05
Manganese	.22
Silicon	.05
Nickel	99.6

Tensile Strength	66,500 PSI	460 MPA
Yield Strength	36,000 PSI	250 MPA
Elongation		40%

1/16	N99116	\$38.90
3/32	N99332	\$38.50
1/8	N99018	\$38.00

36" CUT LENGTHS PRICE PER POUND (CALL FOR SPOOLED WIRE QUOTES)

## Nickel-Based Alloy MIG, TIG & Subarc Wires

PRICE PER POUND FOR COMMON 36" CUT LENGTHS

SIZE	ALLOY	PART NO.	PRICE
1/16	60	60116	\$29.80
3/32		60332	\$29.50
1/8		60018	\$29.40
1/16	61	61116	\$38.05
3/32		61332	\$37.20
1/8		61018	\$36.30
1/16	67	67116	\$21.90
3/32		67332	\$21.40
1/8		67018	\$20.50
1/16	82	82116	\$30.60
3/32		82332	\$28.90
1/8		82018	\$28.10

CALL FOR QUOTE ON: SPOOLED WIRE, LARGE QUANTITIES, SPECIAL ALLOYS, SPECIAL SIZES OR PACKAGING, FLAG TAG, OR SPECIAL CERTIFICATIONS

INCO ALLOYS INTERNATIONAL IS ONE OF OUR QUALITY SUPPLIERS OF NICKEL ALLOY. PLEASE, LET US KNOW IF YOUR REQUIREMENTS ARE BRAND SPECIFIC, OTHERWISE WE MAY PROVIDE A QUALITY ALTERNATIVE BRAND THAT MEETS THE SAME SPECIFICATIONS.



### AWS SPECIFICATIONS:

#60 AWS A5.14-89 CLASS ERNiCu-7  
 #61 AWS A5.14-89 CLASS ERNi-1  
 #67 AWS A5.7 CLASS CuNi  
 #82 AWS A5.14-89 CLASS ERNiCr-3  
 MIL-E-21662