



Manufacturers of Custom Welding Lines for Resale  
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**SELECTRODE**

**6086**

**Nickel Aluminum Bronze**

## INTERNATIONAL CLASSIFICATIONS

**AWS/ASME A 5.7 ER CuNiAl**

## FEATURES & APPLICATIONS

Used for welding of cast and wrought nickel-aluminum-bronze parts subjected to corrosion, erosion and cavitation in salt or brackish water. It is used to repair and maintenance or Nibral ship propellers, ship fittings, power and chemical plant pumps, marine propulsion systems and oil recovery pumps.

## ALL WELD METAL ANALYSIS (TYPICAL WEIGHT %)

**Microstructure:** Complex alpha matrix with kappa compound phases and some retained beta phase.

**Color:** Pale yellow

Mn	Si	Ni	Fe	Pb	Al	Cu
2.5	.02	5.0	4.0	.001	9.0	Bal

## TYPICAL MECHANICAL PROPERTIES

<b>Undiluted Weld Metal</b>	<b>Maximum Value Up to:</b>
Tensile Strength	104,000 PSI (718 MPa)
Yield Strength	59,000 PSI (407 MPa)
Elongation	23%
Hardness	196 BHN

## WELDING CURRENT & INSTRUCTIONS

**RECOMMENDED CURRENT:** DC- (Argon gas should be used to minimize burn-off of the tungsten electrode)

**WELDING TECHNIQUES:** Insure welding surface is free of contamination. Preheat thicker sections 750°-1100°F (400°-600°C)

### RECOMMENDED AMPERAGE SETTINGS:

Diameter		Metal Thickness		Tungsten Size		Amps
Inches (mm)	Inches (mm)	Inches (mm)	Inches (mm)	Inches (mm)	Inches (mm)	
1/16	(1.6)	1/16	(1.6)	1/16	(1.6)	70-150
3/32	(2.5)	1/8"	(3.2)	3/32	(2.5)	140-230
1/8	(3.2)	3/16	(5.0)	1/8	(3.2)	225-320