



## Alloy 190 Welding Electrodes

**CLASSIFICATIONS:** AWS A5.11/ASME SFA 5.11 Class ENiCu-7 UNS W84190

**DESCRIPTION:** Alloy 190 welding electrodes are used for SMAW welding of NiCu alloys including alloy 400, R405 and K500 and for surfacing of steel. The weld metal is resistant to sea water corrosion, salts and reducing acids. Dissimilar applications include NiCu alloys to carbon and low alloy steels, copper and copper nickel alloys.

### TYPICAL DEPOSIT CHEMISTRY:

C	Ni	Mn	Si	P	S	Fe	Cu	Al	Ti	Others
.02	63.9	3.20	.99	.008	.005	1.37	29.8	.06	.28	<.50

### TYPICAL MECHANICAL PROPERTIES:

<b>Tensile Strength</b>	72,000 psi (500 MPa)
<b>Elongation</b>	44%

### TYPICAL OPERATING PARAMETERS:

Diameter (in/mm)	Amperage	
	Flat	Vertical & Overhead
3/32" (2.4mm)	70-85	65-75
1/8" (3.2mm)	85-110	80-90
5/32" (4.0mm)	110-140	110-120
3/16" (4.8mm)	120-160	110-130

Notice: The results reported are based upon testing of the product under controlled laboratory conditions in accordance with American Welding Society Standards. Actual use of the product may produce different results due to varying conditions. An example of such conditions would be electrode size, plate chemistry, environment, weldment design, fabrication methods, welding procedure and service requirements. Thus the results are not guarantees for use in the field. The manufacturer disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.