# Inweld Nickel Alloy 190

AWS A5.11 ENiCu-7

## Chemical Composition of Inweld Nickel Alloy 190

Fe	C	Al	Ni	Ti	Mn	Si	P	S	Other	Cu
2.5	0.15	0.75	62.0-	1.0	4.0	1.5	0.02	0.015		Balance
			69.0							

Single values are maximum unless otherwise specified.

#### **Description and Applications**

Nickel Alloy 190 is used for welding materials of nickel-copper alloys to themselves (such as ASTM, B127, B163, B164, B165 - these all have a UNS Number of N04400). They also can be used for overlay welding as well as for welding of clad steels where nickel-copper surfacing is required. Dissimilar welding applications including joining Nickel Alloy 200 and copper-nickel alloys. The weld metal is resistant to corrosion by sea water, salts, and reducing acids. The electrode is capable of producing weld deposits that exceed high radiographic requirements. This electrode provides excellent operability for groove and fillet welding in the down-hand position. The smaller diameters for Nickel Alloy 190 are able to be welded in an all position.

### **Typical Weld Metal Properties**

AWS Spec

Tensile Strength: 75,000 psi Yield Strength: 52,000 psi Elongation: 39%

#### **Recommended Parameters**

SMAW (DCRP – Electrode+)

Wire Diameter	<u>Voltage</u>	<u>Amperage</u>
3/32"		55-75
1/8"		75-110
5/32"		110-150
3/16"		150-190