



Ni 190 DC+

NICKEL ALLOY

DESCRIPTION

Basic coated electrode with a Monel* type Nickel-Copper deposit designated for butt welding and surfacing of Nickel-copper, Copper-Nickel and Copper-Nickel plated steels. Also recommended for dissimilar joining like steels / Nickel-Copper or steel / Copper / Copper-Nickel. Excellent resistance to stress corrosion in Cl- containing environments.

CLASSIFICATION

AWS A5.11 : ENiCu-7 UNS : W84190 EN/ISO 14172: E-Ni4060 (NiCu30Mn3Ti)
 DIN 1736 : EL-NiCu30Mn

TYPICAL APPLICATIONS

Construction of equipment for the chemical industry and petrochemical industry, naval constructions and installations for sea water desalination.

Note:"Monel" is a registered trade name of Inco Alloys

BASE MATERIALS : CuNi90/10, CuNi70/30, 400, K-500

PROCEDURE

Rebaking (2 h at 250°C (482°F)). Joints to weld must be clean, exempt from grease, cracks. Guide electrodes with a slight declination (10-20° inclined in direction of travel), weld with a short arc and prevent a high heat input by applying the stringer bead technique (weaving max. 2 times core wire diam.).

MECHANICAL PROPERTIES

Tensile strength: > 69 500 psi (480 MPa)
 Yield strength: > 43 500 psi (300 MPa)
 Elongation: > 30 %
 Impact (Charpy V): > 80 J at +20°C

TYPICAL WELD METAL COMPOSITION (%)

C	Si	Mn	Fe	Ti	Cu	Ni
< 0.05	0.7	3.2	1.2	0.5	29	Rem

WELDING PARAMETERS

Diameter:	4.0 mm (5/32")	3.2 mm (1/8")	2.5 mm (3/32")
Amperage:	90 - 130 A	80 - 110 A	50 - 75 A

WELDING POSITIONS



1G/PA 2F/PB 2G/PC 3G/PF 4G/PE

TIG rods are also available: **Selectarc TIG Ni 190** (AWS A5.14: ERNiCu-7)

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