



Selectarc Ni190

Basic coated NiCu type Electrode

Classification

AWS A5.11 : ENiCu-7
UNS : W84190

ISO 14172 : E-Ni 4060 (NiCu30Mn3Ti)
Material N° : 2.4366

Description & Applications

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 to Nickel-Copper or steel to Copper / Copper-Nickel. Excellent resistance to stress corrosion in Cl- containing environments.

Main 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

UNS	Alloy	DIN	Material N°
C70600	CuNi90/10	CuNi10Fe1Mn	2.0872
C71500	CuNi70/30	CuNi30Mn1Fe	2.0882
N04400	400	NiCu30Fe	2.4360
N05500	K-500	NiCu30Al	2.4375

Typical Weld Metal Composition (%)

C	Si	Mn	Fe	Ti	Cu	Ni
<0.05	0.7	3.2	1.2	0.5	29	Rem. (≥ 65)

All Weld Metal Mechanical Properties

R _{p0.2} (MPa)	R _m (MPa)	A ₅ (%)	KV (J)
>300	>480	>30	+20°C >80

Welding Current & Instructions

Electrode	ØxL (mm)	2,5x300	3,2x350	4,0x350
Current	(A)	50-75	80-110	90-130

Redrying 2 h at 250°C. 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 diameter).

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