



Selectarc Ni82

*Basic coated
Nickel base type Electrode*

Classification

AWS A5.11 : ~ENiCrFe-3
Material N° : 2.4648

ISO 14172 : E-Ni 6082 (NiCr20Mn3Nb)

Description & Applications

Basic coated nickel base electrode, with an alloyed core wire, for cladding of low alloyed and alloyed steels, for welding iron- and nickel base alloys and for dissimilar joints. Used for low temperature alloys as well as for high temperature alloys, for service temperatures from -196°C up to 900°C.

Main applications: Construction and repair welding of high strength steels, tool steels, corrosion resistant steels, high temperature and nickel alloys in component manufacturing, furnace construction, cement industry.

Base materials

UNS	Alloy	DIN	Material N°
K81340	9%Ni	X8Ni9	1.5662
N06600	600	NiCr15Fe	2.4816
N06601	601	NiCr23Fe	2.4851
N08800	800	X10NiCrAlTi3220	1.4876
N08810	800H	X5NiCrAlTi3120	1.4958
	DS	X8NiCrSi3818	1.4862

Typical Weld Metal Composition (%)

C	Si	Mn	Cr	Nb	Fe	Mo	Ni
0.03	0.4	5.0	19.0	2.2	3.0	1.5	Rem.

All Weld Metal Mechanical Properties

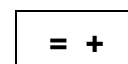
R _{p0.2} (MPa)	R _m (MPa)	A ₅ (%)	KV (J)
400	650	46	+20°C >80 -196°C >65

Welding Current & Instructions

Electrode	ØxL (mm)	2,5x300	3,2x350	4,0x350	5,0x450
Current	(A)	50-70	70-95	90-120	120-160

Redrying 1 h at 250-300°C. Joints to weld must be clean, exempt from grease, cracks. Guide electrodes with a slight declination, weld with a short arc and prevent a high heat input by applying the stringer bead technique (weaving max. 2-3 times core wire diameter). **Do not preheat Nickel alloy in case of homogeneous assemblies. On high carbon steel assemblies, preheat base material at 200 to 500°C following steel grade to avoid cracks in heat affected zone.**

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