Selectarc Ni182

Basic coated
Inconel type Electrode

Classification

AWS A5.11 : ENiCrFe-3
UNS : W86182
ISO 14172 : E-Ni 6182 (NiCr15Fe6Mn)
Material N° : 2.4620

Description & Applications

Basic coated electrode with an NiCrFe type nickel base deposit. Used for repairing and joining of Nickel alloys, 5 % Nickel steels, cryogenic stainless steels (down to –196°C), Incoloy 800 and other high temperature steels. For joining dissimilar materials as stainless steels to low alloyed steels, stainless steels to Nickel alloys, for buttering of difficult to weld steels. Deposit insensitive to cracks, very good resistance against acids, salt and alkaline solutions, molten salt. Resistant in oxidizing and carburizing atmospheres (avoid a sulphurous atmosphere).

Main applications: Oven parts, burners, heat treatment equipment, cement works , moulds, tanks, transport and storage of liquid gas. Chemical industries, petrochemical industries, glassworks, civil engineering, repairing and maintenance workshops.
Note:"Inconel" and "Incoloy" are registered trade names of Inco Alloys.

Base materials

UNS	Alloy	DIN	Material N°
N06600	600	NiCr15Fe	2.4816
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
<0.04	0.4	6.0	16.5	2.0	6.0	0.2	Rem.

All Weld Metal Mechanical Properties

$R_{p0,2}$ (MPa)	R_m (MPa)	A_5 (%)	KV (J)
>380	>620	>35	+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).

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