

## Inconel 182 (E NiCro 600)

**CATEGORY** SMAW Stick Electrodes

**TYPE** Nickel based high basic SMAW welding electrode.

**APPLICATIONS** Nicro 600 electrodes are used for welding of nickel-chromium-iron (Inconel 600, 601 and 690) alloys to themselves, and for dissimilar welding between nickel-chromium-iron (Monel, Inconel and incoloy) alloys and steels or stainless steels. The applications include surfacing as well as clad-side welding. High manganese of this weld deposit reduces the possibility of micro fissures. High manganese reduces creep strength, which limits its usage up to 900°F

**PROPERTIES** High mechanical properties with excellent thermal shock resistance and impact values at sub zero temperatures down to -196°C

**CLASSIFICATION**

AWS	A 5.11: E NiCrFe3
EN ISO	14172: E Ni 6182
DIN: W.Nr.	2.4807
DIN	1736: EL-NiCr15FeMn

**SUITABLE FOR** Dissimilar welds for which the electrode are used include INCONEL alloys and INCOLOY or Hastelloy alloys joined to carbon steels, stainless steels, nickel and MONEL alloys, MONEL alloys joined to carbon steels; nickel joined to stainless steels; and stainless steels joined to carbon steels.  
 Alloy type : Incoloy 800, DS - Inconel 600, 601, UNS Nr (unified numbering system) : K 81340, N06600, N06601, N08800, N08810. DIN design : X8Ni9 - 12Ni19 - 10Ni 14 - NiCr15Fe - NiCr23Fe - X10NiCrAlTi3220 - X10CrNiMoNb18.12 - NiCr20Ti. W.Nrs: 1.5662 - 1.5680 - 1.5637 - 1.4876 - 1.4583 - 2.4816 - 2.4851 - 2.4951, 2.4806, Alloy 82, 1.4816, 600L, 800H, Alloy 80A, Alloy 75, difficult to Weld steel, chain, cock wheels, kiln tyre

**APPROVALS** CE approved

**WELDING POSITIONS:**



**WELT METAL ANALYSIS %**

Ni	C	Mn	Fe	S	Si	Cu	Ti	Cr	Nb	P	Other
> 59.0	< 0.10	5.0-9.5	< 10.0	0.015	< 1.0	< 0.50	< 1.0	13.0-17.0	1.0-2.5	< 0.030	< 0.50

**MECHANICAL PROPERTIES**

Heat Treatment	Tensile strength		Yield strength		Elongation (%)
	(PSI)	(MPA)	(PSI)	(MPA)	
AW	>80,000	>552	>53.5	>370	36

AW: as welded

**WELDING PARAMETERS PACKING**

Welding Parameters			Packing	
D (mm)	Length (mm)	Current (A) DC+	kg / can	kg / 6pack
2.4	229	40-65	2.27	13.62
3.2	356	65-95	2.27	13.62
4.0	356	95-125	2.27	13.62