

**Ni-A** (DC+)**NICKEL ALLOY****DESCRIPTION**

Basic coated nickel base electrode, with an alloyed core wire, for joining and repairing of high temperature alloys, dissimilar joining of stainless steel to creep resistant steels, for joining alloy 800, 800H, HK40, HP45 etc. The electrode distinguishes itself by a soft arc, easy slag removal and regular weld beads.

CLASSIFICATION

AWS A5.11: ENiCrFe-2 ISO 14172: E-Ni 6092 (NiCr16Fe12NbMo) UNS: W86133

TYPICAL APPLICATIONS

Thermal power stations, ovens, thermal equipment for heat treatment, petrochemical installations.

BASE MATERIALS

Alloys: HP45, HK40, 800, 800H, DS

PROCEDURE

Redrying 1 h at 482-572°F (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 times core wire diameter). Nickel base alloys are welded without preheating and an interpass temperature <302°F (150°C). For repair welding of steels with high carbon content a preheating between 392-932°F (200- 500°C) has to be applied. A post weld heat treatment can be performed without influence on the weld deposit.

MECHANICAL PROPERTIES

Tensile strength: > 94 274 psi (> 650 MPa)
 Yield strength: > 56 564 psi (> 390 MPa)
 Elongation: > 40 %
 Impact (Charpy V): > 80 J at +68°F (20°C)

TYPICAL WELD METAL COMPOSITION (%)

C	Mn	Si	Cr	Fe	Mo	Nb	Ni
0.04	3.0	0.4	16.0	6.0	1.5	2.2	Rem

WELDING PARAMETERS

Diameter:	4.0 mm (5/32")	3.2 mm (1/8")	2.5 mm (3/32")
Amperage:	90-120 A	70-95 A	50-70 A

WELDING POSITIONS

1G/PA

2F/PB

2G/PC

3G/PF

4G/PE

Rev.: 14_08

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