

**B96** (AC/DC+ -)**NICKEL ALLOY****DESCRIPTION**

Basic coated electrode with approx. 160% recovery. The electrode is especially designed to weld with alternating current to avoid magnetic arc blow. Mainly used for construction and repair welding of high strength cold-tough 3; 5 and 9% Ni-steels.

**CLASSIFICATION**

AWS A5.11: ENiCrMo-6

ISO 14172: E-Ni 6620 (NiCr14Mo7Fe)

UNS: W86620

**TYPICAL APPLICATIONS**

Transportation and storage tanks of liquid natural gas.

**BASE MATERIALS**

UNS	Alloy	DIN	Material N°
K34718	3,5%Ni	10Ni14	1.5638
	5%Ni	12Ni19	1.5680
K81340	9%Ni	X8Ni9	1.5662

**PROCEDURE**

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 times core wire diameter).

**MECHANICAL PROPERTIES**

Tensile strength: > 100 076 psi (> 690 MPa)  
 Yield strength: > 60 915 psi (> 420 MPa)  
 Elongation: > 35 %  
 Impact (Charpy V): > 90 J at +68°F (20°C), > 70 J at -320°F (-196°C)

**TYPICAL WELD METAL COMPOSITION (%)**

C	Mn	Si	Cr	Nb	Fe	Mo	W	Ni
<0.08	3.6	0.6	13.5	1.2	7.5	7.0	1.2	Rem

**WELDING PARAMETERS**

Diameter: 4.0 mm (5/32") 3.2 mm (1/8") 2.5 mm (3/32")  
 Amperage: 120-160 A 100-130 A 70-100 A

**WELDING POSITIONS**

1G/PA

2F/PB

2G/PC

3G/PF

4G/PE

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