


**Ni 276** DC+

**NICKEL ALLOY**
**DESCRIPTION**

**Nickel base electrode Ni-Cr-Mo (C-276) type.** Basic coated electrode with an alloyed core wire for welding of Nickel-Base alloys (alloy C-276) and other highly corrosion resistant Ni-Cr-Mo alloys as well as special stainless steel types. Stable arc, regular drop transfer, easy to watch weld pool, nice aspect of the weld beads. Very resistant in sulphurous acid environment, highly concentrated with chlorides and also in the presence of oxidizing solutions ( FeCl, CuCl ).

**CLASSIFICATION**

AWS A5.11 : ENiCrMo-4      UNS : W80276      EN/ISO 14172: E-Ni6276 (NiCr15Mo15Fe6W4)  
DIN 1736 : EL-NiMo15Cr15W

**TYPICAL APPLICATIONS**

Welding of Off-shore components, boilers, containers, piping systems in the chemical and petrochemical industries as well as components of flue gas desulfurizing plants.

**BASE MATERIALS:** C-276, C-4, 625, 825, 254SMo

**PROCEDURE**

Rebaking (2 h at 250-300°C (482 - 572°F)). 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 diam.).

**MECHANICAL PROPERTIES**

Tensile strength:      > 105 000 psi (> 720 MPa)  
Yield strength:      > 65 000 psi (> 450 MPa)  
Elongation:      > 30 %  
Impact (Charpy V):      > 70 J at +20°C

**TYPICAL WELD METAL COMPOSITION (%)**

C	Si	Mn	Cr	Mo	W	Fe	Ni
< 0.02	0.2	0.6	16.5	16.0	4.0	5.0	Rem

**WELDING PARAMETERS**

Diameter:	4.0 mm (5/32")	3.2 mm (1/8")	2.5 mm (3/32")
Amperage:	90 - 120 A	70 - 100 A	50 - 70 A

**WELDING POSITIONS**


1G/PA    2F/PB    2G/PC    3G/PF    4G/PE

TIG rods are also available: **Selectarc TIG Ni 276** (AWS A5.14: ERNiCrMo-4)

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*Specialized welding alloys and technology. For technical assistance or for ordering:*