



NiTi3

DC+

NICKEL ALLOY

DESCRIPTION

Pure nickel electrode. Basic coated electrode with a Nickel deposit containing 1 - 2% Ti designated for butt welding of pure Nickel (alloy 200) and surfacing of Nickel-copper, Copper-Nickel and Copper-Nickel plated steels. Also recommended for dissimilar joining like steels / Nickel-Copper or steel / Copper / Copper-Nickel. Excellent resistance to NaOH up to 400°C (752°F).

CLASSIFICATION

AWS A5.11 : ENi-1 UNS : W82141 DIN 1736 : EL-NiTi3 EN/ISO 14172 : E-Ni2061 (NiTi3)

TYPICAL APPLICATIONS

Construction of equipment for the chemical industry and petrochemical industry, food stuff industry. For caustic soda production as well as for soap and detergents.

BASE MATERIALS: 200, 201, 205

PROCEDURE

Rebaking (1 h at 250-300°C (482 - 572°F)). Joints to weld must be clean, exempt from grease, cracks. Guide electrodes with a slight declination (10-20° inclined in direction of travel), weld with a short arc and apply the stringer bead technique (weaving max. 2 times core wire diam.). To improve degassing of the deposit, adopt a low welding speed.

MECHANICAL PROPERTIES

Tensile strength: > 61 000 psi (> 420 MPa)
 Yield strength: > 40 500 psi (> 280 MPa)
 Elongation: > 28 %
 Impact (Charpy V): > 160 J at +20°C, > 160 J at -196°C

TYPICAL WELD METAL COMPOSITION (%)

C	Si	Mn	Fe	Ti	Al	Ni
< 0.03	0.7	0.3	0.3	1.6	0.3	Rem

WELDING PARAMETERS

Diameter: 4.0 mm (5/32") 3.2 mm (1/8") 2.5 mm (3/32")
 Amperage: 120 - 160 A 90 - 120 A 70 - 90 A

WELDING POSITIONS



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

TIG rods are also available: **Selectarc TIG NiTi3** (AWS A5.14: ERNi-1)

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



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