

# Selectarc NiTi3

Pure Nickel Electrode

# Classification

AWS A5.11 : ENi-1 ISO 14172 : E-Ni 2061 (NiTi3)

Material N° : 2.4156

# **Description & Applications**

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 to Nickel-Copper or steel / Copper to Copper-Nickel. Excellent resistance to NaOH up to 400°C.

**Main 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**

| UNS    | Alloy | DIN       | Material N° |
|--------|-------|-----------|-------------|
| N02200 | 200   | Ni99.2    | 2.4066      |
| N02201 | 201   | LC-Ni99   | 2.4068      |
| N02205 | 205   | LC-Ni99.6 | 2.4061      |
|        |       | Ni99.6    | 2.4060      |

| Typical   | Mald Matal    | Composition ( | / O/ \ |
|-----------|---------------|---------------|--------|
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| С      | Si  | Mn  | Fe  | Ti  | Al  | Ni   |
|--------|-----|-----|-----|-----|-----|------|
| < 0.03 | 0.7 | 0.3 | 0.3 | 1.6 | 0.3 | Rem. |

# **All Weld Metal Mechanical Properties**

| R <sub>p0.2</sub> ( MPa ) | R <sub>m</sub> (MPa) | A <sub>5</sub> (%) | KV (J)     |
|---------------------------|----------------------|--------------------|------------|
| >280                      | >420                 | >28                | +20℃ >160  |
|                           |                      |                    | -196℃ >160 |

# **Welding Current & Instructions**

| Electrode | ØxL ( mm ) | 2,5x350 | 3,2x350 | 4,0x350 |
|-----------|------------|---------|---------|---------|
| Current   | (A)        | 70-90   | 90-120  | 120-160 |

Redrying 1 h at 250-300°C. 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 diameter). To improve degassing of the deposit, adopt a low welding speed.

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