

**Electrode for joining dissimilar metals with highest crack resistance****GENERAL DESCRIPTION**

Special electrode with high nickel content for joining unalloyed and alloyed steel, stainless steel and heat resistant steel, nickel and nickel alloys, copper and copper alloys.  
Also suitable for dissimilar welding of these metals. The deposit has a very high ductility, is ferrite free, corrosion resistant and heat resistant up to high temperatures.  
Excellent weldability on alternating current.

**APPLICATIONS**

Joining dissimilar metals, especially for high thicknesses and rigid joints.  
Welding of cryogenic steels: vessels and pipes for liquefied gases.  
Intermediate layer in copper-steel joints.  
Welding of crack sensitive steel types: roller guides of cement kilns, hydraulic cylinders.

**CHEMICAL COMPOSITION (%) (Typical values, all weld metal)**

|                    |                    |                  |                  |                  |
|--------------------|--------------------|------------------|------------------|------------------|
| C : < 0.05         | Cr : 16.00 – 17.00 | Mo : 1.50 – 2.00 | Mn : 2.00 – 2.50 | Nb : 1.00 – 1.50 |
| Fe : 11.00 – 12.00 | Ni : > 64.00       |                  |                  |                  |

**MECHANICAL PROPERTIES (Typical values, all weld metal)**

| Yield Strength<br>N/mm <sup>2</sup> | Tensile Strength<br>N/mm <sup>2</sup> | Elongation<br>5d (%) | Impact Strength<br>Charpy V notch (ISO-V) |
|-------------------------------------|---------------------------------------|----------------------|---|
| ≥ 420 MPa                           | ≥ 600 MPa                             | ≥ 30 %               | ≥ 100 J (20°C) / ≥ 90 J (-196°C)          |

**GENERAL INFORMATION**

|                            |   |          |           |
|----------------------------|---|----------|-----------|
| <b>Welding positions</b>   | All, except vertical down                       |          |           |
| <b>Shielding gas</b>       | NA  |          |           |
| <b>Packing</b>             | 5 Kg in a plastic box                           |          |           |
| <b>Polarity</b>            | Ac or DC, reverse polarity (electrode positive) |          |           |
| <b>Diameter (mm)</b>       | 2.5   | 3.2      | 4.0       |
| <b>Length (mm)</b>         | 300   | 300      | 350       |
| <b>Approx. current (A)</b> | 70 - 80   | 90 - 100 | 115 - 130 |

**Tips & Tricks**

Clean and de-grease the work piece.  
Weld with a short arc, the electrode almost vertical to the work piece.  
Crack sensitive steels should be preheated depending on the composition and the dimensions.  
Normally 100 to 250 °C (210-480 °F) will be sufficient.  
Always use dry electrodes.

*The information in this document is based on intensive tests and is accurate to the best of our knowledge. Do note that these values are only typical values for tests in accordance to prescribed standards. The suitability of the product should always be confirmed by qualification tests before use in any application. The information can be changed without previous notice.*