# OK 61.80




Nb-stabilized MMA-electrode for welding Nb- or Ti-stabilized stainless steel of the 19Cr10Ni-type. The hotcracking resistance is quite good. The ferrite in the weld metal may transform to brittle phases at elevated temperatures. To avoid excessive embrittlement of the welds the maximum working temperature is limited to 400° C.

| Specifications | |
|---|---|
| **Classifications** | EN ISO 3581-A : E 19 9 Nb R 1 2<br>SFA/AWS A5.4 : E347-17 |
| **Approvals** | CE : EN 13479<br>DNV : NV 347<br>UKCA : EN 13479<br>VdTÜV : 00638 |

Approvals are based on factory location. Please contact ESAB for more information.

| | |
|---|---|
| **Welding Current** | DC+, AC |
| **Ferrite Content** | FN 6-12 |
| **Alloy Type** | Austenitic CrNi |
| **Coating Type** | Acid Rutile |
| **Min AC OCV** | 50 |

| Tensile_Properties | | | |
|---|---|---|---|
| **Testing Condition** | **Yield Strength** | **Tensile Strength** | **Elongation** |
| **ISO** | | | |
| As Welded | 480 MPa | 620 MPa | 40 % |

| Charpy Testing | | |
|---|---|---|
| **Testing Condition** | **Testing Temp** | **Impact Value** |
| **ISO** | | |
| As Welded | 20 °C | 60 J |
| As Welded | 0 °C | 58 J |
| As Welded | -60 °C | 40 J |

| Typical Weld Metal Analysis % | | | | | | | |
|---|---|---|---|---|---|---|---|
| **C** | **Mn** | **Si** | **Ni** | **Cr** | **N** | **Nb** | **FN WRC-92** |
| 0.03 | 0.6 | 0.7 | 10.0 | 19.5 | 0.09 | 0.29 | 7 |

| Deposition Data | | | | | |
|---|---|---|---|---|---|
| **Diameter** | **Amps** | **Volts** | **Efficiency (Per)** | **Fusion time per electrode at 90Per I max** | **Deposition rate at 90Per** |
| 2.5 x 300 mm | 50-90 A | 26 V | 56 % | 38 sec | 1.0 kg/h |
| 3.2 x 350 mm | 70-130 A | 28 V | 56 % | 53 sec | 1.4 kg/h |
| 4.0 x 350 mm | 90-180 A | 30 V | 56 % | 55 sec | 2.0 kg/h |
| 5.0 x 350 mm | 140-250 A | 31 V | 56 % | 60 sec | 2.9 kg/h |