

## **OK 63.35**

OK 63.35 is a low carbon stainless steel electrode with basic coating of the 18Cr12Ni3Mo type. It is suitable for applications where the mechanical requirements are tough. It provides good impact toughness levels. Minimum lateral expansion of 0.38mm requirement is met down to -120°C. The same requirement can be met at -196°C when the ferrite content is at the low end of the specification i.e. FN 3 - 4.

| Specifications  |  |
|-----------------|--|
| Classifications | EN ISO 3581-A : E 19 12 3 L B 2 2<br>SFA/AWS A5.4 : E316L-15<br>Werkstoffnummer : 1.4430 |
| Approvals       | ABS : Stainless CE : EN 13479 UKCA : EN 13479 VdTÜV : 04812                              |

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

| Welding Current | DC+             |
|-----------------|-----------------|
| Ferrite Content | FN 3-8          |
| Alloy Type      | Austenitic CrNi |
| Coating Type    | Basic           |

| Typical Tensile Properties                           |         |         |      |  |  |
|--|---------|---------|------|--|--|
| Condition Yield Strength Tensile Strength Elongation |         |         |      |  |  |
| AWS  |         |         |      |  |  |
| As Welded  | 430 MPa | 560 MPa | 40 % |  |  |

| Typical Charpy V-Notch Properties |                     |              |  |  |  |
|-----------------------------------|---------------------|--------------|--|--|--|
| Condition                         | Testing Temperature | Impact Value |  |  |  |
| AWS                               |                     |              |  |  |  |
| As Welded                         | -120 °C             | 60 J         |  |  |  |
| As Welded                         | 20 °C               | 95 J         |  |  |  |
| As Welded                         | -196 °C             | 35 J         |  |  |  |
| As Welded                         | -60 °C              | 75 J         |  |  |  |

| Typical Weld Metal Analysis % |     |     |      |      |     |      |           |
|-------------------------------|-----|-----|------|------|-----|------|-----------|
| С                             | Mn  | Si  | Ni   | Cr   | Мо  | N    | FN WRC-92 |
| 0.04                          | 1.6 | 0.4 | 12.6 | 18.3 | 2.7 | 0.06 | 4         |

| Deposition Data |          |         |                |  |                 |  |
|-----------------|----------|---------|----------------|--|-----------------|--|
| Diameter        | Current  | Voltage | Efficiency (%) | Fusion time per<br>electrode at 90% I<br>max | Deposition Rate |  |
| 2.5 x 300.0 mm  | 55-85 A  | 24 V    | 63 %           | 42 sec                                       | 0.9 kg/h        |  |
| 3.2 x 350.0 mm  | 80-120 A | 24 V    | 63 %           | 58 sec                                       | 1.3 kg/h        |  |
| 4.0 x 350.0 mm  | 80-180 A | 24 V    | 62 %           | 63 sec                                       | 1.8 kg/h        |  |