

## OK Aristorod 69

The non copper coated OK AristoRod 69 is a low-alloyed, chromium-nickel-molybdenum (0,3% Cr, 1,4% Ni, 0,25% Mo), solid wire for GMAW of high tensile strength steels requiring tough weld metal for critical applications. Also suitable when high impact strength at lower temperatures is required.

The AristoRod wires are suitable for operating at high currents with maintained disturbance free wire feeding giving a stable arc with a low amount of spatter. OK AristoRod 69 delivered in the unique Esab Octagonal Marathon Pac is excellent in mechanised welding applications.

|                                       |   |
|---------------------------------------|---|
| <b>Classifications Wire Electrode</b> | SFA/AWS A5.28 : ER110S-G<br>EN ISO 16834-A : G Mn3Ni1CrMo   |
| <b>Classifications</b>                | SFA/AWS A5.28 : ER110S-G<br>EN ISO 16834-A : G 69 4 M Mn3Ni1CrMo<br>EN ISO 16834-A : G Mn3Ni1CrMo             |
| <b>Approvals</b>                      | ABS ER 110S-G (M21)<br>CE EN 13479<br>DB 42.039.33<br>DNV-GL IV Y69MS (M21)<br>VdTUV 11837<br>NAKS/HAKC 1.2MM |

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

|                      |  |
|----------------------|--|
| <b>Alloy Type</b>    | Low alloyed (1.4 % Ni, 0.3 % Cr, 0.3 % Mo) |
| <b>Shielding Gas</b> | M21 (EN ISO 14175)                         |

### Typical Tensile Properties

| Condition                   | Yield Strength | Tensile Strength | Elongation |
|-----------------------------|----------------|------------------|------------|
| <b>AWS 80Ar/20CO2 (M21)</b> |                |                  |            |
| As Welded                   | 715 MPa        | 805 MPa          | 17 %       |
| <b>EN 80Ar/20CO2 (M21)</b>  |                |                  |            |
| As Welded                   | 730 MPa        | 800 MPa          | 19 %       |
| Stress Relieved 15hr 620°C  | 690 MPa        | 750 MPa          | 20 %       |

### Typical Charpy V-Notch Properties

| Condition                   | Testing Temperature | Impact Value |
|-----------------------------|---------------------|--------------|
| <b>AWS 80Ar/20CO2 (M21)</b> |                     |              |
| As Welded                   | -30 °C              | 80 J         |
| As Welded                   | -40 °C              | 60 J         |
| <b>EN 80Ar/20CO2 (M21)</b>  |                     |              |
| As Welded                   | 20 °C               | 100 J        |
| As Welded                   | -40 °C              | 73 J         |
| Stress Relieved 15hr 620°C  | 20 °C               | 130 J        |
| Stress Relieved 15hr 620°C  | -20 °C              | 60 J         |
| Stress Relieved 15hr 620°C  | -30 °C              | 60 J         |

### Typical Weld Metal Analysis %

| C    | Mn  | Si  | S    | P    | Ni  | Cr  | Mo   | V    | Cu   |
|------|-----|-----|------|------|-----|-----|------|------|------|
| 0.06 | 1.6 | 0.6 | 0.01 | 0.01 | 1.4 | 0.3 | 0.25 | 0.07 | 0.07 |

### Typical Wire Composition %

| C     | Mn   | Si   | Ni   | Cr   | Mo   |
|-------|------|------|------|------|------|
| 0.089 | 1.54 | 0.53 | 1.23 | 0.26 | 0.24 |

### Deposition Data

| Diameter | Current   | Voltage | Wire Feed Speed | Deposition Rate |
|----------|-----------|---------|-----------------|-----------------|
| 0.8 mm   | 80-280 A  | 18-28 V | 2.7-14.7 m/min  | 1.0-5.4 kg/h    |
| 0.9 mm   | 80-280 A  | 18-28 V | 2.7-14.7 m/min  | 1.0-5.4 kg/h    |
| 1.0 mm   | 80-280 A  | 18-28 V | 2.7-14.7 m/min  | 1.0-5.4 kg/h    |
| 1.2 mm   | 120-350 A | 20-33 V | 2.7-12.4 m/min  | 1.5-6.6 kg/h    |
| 1.6 mm   | 225-480 A | 26-38 V | 3.1-8.1 m/min   | 3.3-0.0 kg/h    |