# OK Aristorod 55

The non copper coated OK AristoRod 55 is a low-alloyed, chromium-nickel-molybdenum (0,5% Cr, 0,5% Ni, 0,2% Mo), solid wire for GMAW of high strength steels. But, also suitable when welding steels where good impact toughness is required at lower temperatures.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 55 delivered in the unique ESAB Octagonal Marathon Pac is excellent in mechanised welding applications.

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|---|---|
| **Classifications Wire Electrode** | SFA/AWS A5.28 : ER100S-G |
| **Classifications** | SFA/AWS A5.28 : ER100S-G<br>EN ISO 16834-A : G Mn3NiCrMo<br>EN ISO 16834-A : G 55 4 M Mn3NiCrMo |
| **Approvals** | CE EN 13479<br>LR 4Y55S H5<br>NAKS/HAKC 1.2MM |

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

| | |
|---|---|
| **Alloy Type** | Low alloyed (0.5 % Cr, 0.5 % Ni, 0.2 % Mo) |
| **Shielding Gas** | M21 (EN ISO 14175) |

## Typical Tensile Properties

| Condition | Yield Strength | Tensile Strength | Elongation |
|---|---|---|---|
| **EN 80Ar/20CO2 (M21)** | | | |
| As Welded | 690 MPa | 770 MPa | 20 % |
| Stress Relieved 1hr 620°C | 660 MPa | 750 MPa | 24 % |
| Stress Relieved 1hr 570°C | 660 MPa | 750 MPa | 24 % |

## Typical Charpy V-Notch Properties

| Condition | Testing Temperature | Impact Value |
|---|---|---|
| **EN 80Ar/20CO2 (M21)** | | |
| As Welded | 0 °C | 80 J |
| As Welded | -20 °C | 75 J |
| As Welded | -30 °C | 65 J |
| As Welded | -40 °C | 60 J |
| As Welded | -50 °C | 50 J |
| As Welded | -60 °C | 50 J |
| Stress Relieved 1hr 570°C | -20 °C | 60 J |
| Stress Relieved 1hr 570°C | -40 °C | 50 J |
| Stress Relieved 1hr 570°C | -60 °C | 35 J |
| Stress Relieved 1hr 620°C | 0 °C | 95 J |
| Stress Relieved 1hr 620°C | -20 °C | 70 J |
| Stress Relieved 1hr 620°C | -30 °C | 55 J |
| Stress Relieved 1hr 620°C | -50 °C | 40 J |

## Typical Weld Metal Analysis %

| C | Mn | Si | S | P | Ni | Cr | Mo | Cu |
|---|---|---|---|---|---|---|---|---|
| 0.11 | 1.1 | 0.5 | 0.015 | 0.015 | 0.5 | 0.5 | 0.2 | 0.07 |

## Typical Wire Composition %

| C | Mn | Si | Ni | Cr | Mo |
|---|---|---|---|---|---|
| 0.12 | 1.38 | 0.71 | 0.53 | 0.58 | 0.20 |

## Deposition Data

| Diameter | Current | Voltage | Wire Feed Speed | Deposition Rate |
|---|---|---|---|---|
| 0.8 mm | 40-170 A | 16-22 V | 2.0-10.8 m/min | 0.4-2.6 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 | 3.5-12.0 m/min | 3.3-11.6 kg/h |



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