

## OK AristoRod 13.22

The non copper coated OK AristoRod 13.22 is a low-alloyed, chromium-molybdenum (2,6% Cr, 1,1 % Mo), solid wire for GMAW of creep resistant steels of similar composition. For service temperatures up to 600 C. Similar to AWS A5.28 ER80S-B2 . 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 13.22 can even be delivered in the unique Esab Octagonal Marathon Pac is excellent in mechanised welding applications.

### Specifications

|                        |                                                                                        |
|------------------------|----------------------------------------------------------------------------------------|
| <b>Classifications</b> | EN ISO 21952-A : G CrMo2Si<br>EN ISO 21952-B : G 62 M 2C1M3<br>SFA/AWS A5.28 : ER90S-G |
|------------------------|----------------------------------------------------------------------------------------|

|                      |                                   |
|----------------------|-----------------------------------|
| <b>Alloy Type</b>    | Low alloyed (Cr 2.5% and Mo 1.0%) |
| <b>Shielding Gas</b> | M21 (EN ISO 14175)                |

### Tensile Properties

| Testing Condition                      | Yield Strength | Tensile Strength | Elongation |
|----------------------------------------|----------------|------------------|------------|
| <b>EN 80Ar/20CO2 (M21)</b>             |                |                  |            |
| Stress relieved++<br>1 hour(s) 700 °C  | 550 MPa        | 660 MPa          | 21 %       |
| Stress relieved+<br>0.5 hour(s) 750 °C | 410 MPa        | 520 MPa          | 24 %       |
| <b>AWS 80Ar/20CO2 (M21)</b>            |                |                  |            |
| As Welded                              | 750 MPa        | 890 MPa          | 19 %       |
| As Welded+                             | 680 MPa        | 880 MPa          | 19 %       |

### Charpy Testing

| Testing Condition           | Testing Temp | Impact Value |
|-----------------------------|--------------|--------------|
| <b>EN 80Ar/20CO2 (M21)</b>  |              |              |
| Stress relieved++           | 20 °C        | 130 J        |
| Stress relieved++           | -40 °C       | 45 J         |
| Stress relieved++           | -20 °C       | 80 J         |
| <b>AWS 80Ar/20CO2 (M21)</b> |              |              |
| As Welded                   | -40 °C       | 30 J         |
| As Welded                   | 20 °C        | 55 J         |

### Typical Wire Composition %

| C    | Mn  | Si   | Ni  | Cr   | Mo  |
|------|-----|------|-----|------|-----|
| 0.07 | 1.0 | 0.65 | 0.1 | 2.45 | 1.0 |

### Typical Weld Metal Analysis %

| C    | Mn  | Si  | S     | P     | Cr  | Mo  |
|------|-----|-----|-------|-------|-----|-----|
| 0.06 | 1.0 | 0.6 | 0.015 | 0.010 | 2.5 | 1.0 |

### Deposition Data

| Diameter | Amps      | Volts   | Wire Feed Speed | Deposition Rate |
|----------|-----------|---------|-----------------|-----------------|
| 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    |