



# Product Data Sheet

G 'Gas-shielded metal-arc welding'

# OK AristoRod 13.26

|                           |                              |                                   |                    |                        |                        |               |
|---------------------------|------------------------------|-----------------------------------|--------------------|------------------------|------------------------|---------------|
| Prepared by<br>Mats Linde | Qualified by<br>Tero Tolonen | Approved by<br>Per-Erik Andersson | Reg no<br>EN006208 | Cancelling<br>EN005535 | Reg date<br>2013-09-12 | Page<br>1 (2) |
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## REASON FOR ISSUE

Approvals update.

## GENERAL

The non copper coated OK AristoRod 13.26 is a low-alloyed, nickel-copper (0,8% Ni, 0,45% Cu), solid wire for GMAW of weathering steels, such as COR-TEN, Patinax, Dillicor etc.

According to NACE it would be acceptable to use these welding consumables, since the nickel content is below

the maximum acceptable level, 1 % for sour gas applications.

One other requirement from NACE is the maximum hardness of the deposited weld metal, which must not exceed 22 HRC.

The weld metal composition and mechanical properties also make this product suitable for welding high strength steels with a minimum yield strength less than 470 MPa.

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 13.26 delivered in the unique Esab Octagonal Marathon Pac is excellent in mechanised welding applications.

**Shielding Gas:** M21, C1 (EN ISO 14175)

**Alloy Type:** Low alloyed (0.8 % Ni, 0.4 % Cu)

### CLASSIFICATIONS Weld Metal

EN ISO 14341-A G 42 0 C1 Z 3Ni1Cu  
EN ISO 14341-A G 46 4 M21 Z 3Ni1Cu

### CLASSIFICATIONS Wire Electrode

EN ISO 14341-A G Z 3Ni1Cu  
SFA/AWS A5.28 ER80S-G

### APPROVALS

CE EN 13479  
DB 42.039.32  
DNV II YMS (C1)  
DNV III YMS (M21)

### APPROVAL COMMENT

Valid for lotnumbers starting with PV

## CHEMICAL COMPOSITION

|    | All Weld Metal (%)      |                 | Wire/Strip (%) |       |
|----|-------------------------|-----------------|----------------|-------|
|    | 80Ar/20CO2 (M21)<br>Nom | CO2 (C1)<br>Nom | Min            | Max   |
| C  | 0.1                     | 0.1             | 0.08           | 0.11  |
| Si | 0.8                     | 0.7             | 0.70           | 0.90  |
| Mn | 1.4                     | 1.3             | 1.25           | 1.55  |
| P  | 0.010                   | 0.010           |                | 0.025 |
| S  | 0.015                   | 0.015           |                | 0.025 |
| Ni | 0.8                     | 0.8             | 0.8            | 0.9   |
| Cu | 0.3                     | 0.3             | 0.25           | 0.60  |



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## MECHANICAL PROPERTIES OF WELD METAL

### All Weld Metal

| Properties   | AWS<br>80Ar/20CO2 (M21)  |     | AWS<br>98Ar/2O2 (M13)                 |     |
|--------------|--------------------------|-----|---------------------------------------|-----|
|              | Min                      | Typ | Min                                   | Typ |
| As welded    |                          |     |                                       |     |
| As welded    |                          |     |                                       |     |
| Rp0.2 (MPa)  |                          | 540 |                                       | 580 |
| Rm (MPa)     | 550                      | 625 |                                       | 650 |
| A4-A5 (%)    |                          | 26  |                                       | 22  |
| Z (%)        |                          | 70  |                                       | 60  |
| at 20°C (J)  |                          | 140 |                                       | 140 |
| at 0°C (J)   |                          | 142 |                                       |     |
| at -20°C (J) |                          | 110 |                                       | 100 |
| at -40°C (J) |                          | 83  |                                       | 70  |
| at -60°C (J) |                          | 50  |                                       | 30  |
| Comments:    | Interpass temp 170-200°C |     | Comments:<br>Interpass temp 170-200°C |     |

## ECONOMICS & CURRENT DATA

| Dimension (mm) | Current (A) |     | W   | $\eta$ | H   |     | Feed |      |     | U   |
|----------------|-------------|-----|-----|--------|-----|-----|------|------|-----|-----|
|                | Min         | Max |     |        | Nom | Min | Max  | Min  | Max |     |
| $\emptyset$    |             |     | Nom | Nom    | Min | Max | Min  | Max  | Min | Max |
| 0.8            | 80          | 280 | 15  |        | 1   | 5,4 | 2,7  | 14,7 | 18  | 28  |
| 1.0            | 80          | 280 | 15  |        | 1   | 5,4 | 2,7  | 14,7 | 18  | 28  |
| 1.2            | 120         | 350 | 18  |        | 1,5 | 6,6 | 2,7  | 12,4 | 20  | 33  |
| 1.4            | 120         | 350 | 18  |        | 1,5 | 6,6 | 2,7  | 12,4 | 20  | 33  |
| 1.6            | 225         | 480 | 20  |        | 3,3 | 0   | 3,1  | 8,1  | 26  | 38  |

**W** = Gas consumption (l / min)

$\eta$  = Recovery, g weld metal / 100g wire (%)

**H** = Deposit rate (kg weld metal / hour arc time)

**Feed** = Feeding rate (m/min)

**U** = Arc voltage (V)