



Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK AristoRod 13.26

| | | | | | | |
|----------------------|---------------|-----------------|----------|------------|------------|-------|
| Prepared by | Qualified by | Approved by | Reg no | Cancelling | Reg date | Page |
| Christoffer Svensson | P-O Oskarsson | Helene Rasmuson | EN010949 | EN009982 | 2023-12-19 | 1 (3) |

REASON FOR ISSUE

UKCA Approval added.

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-GL II YMS (C1)
 DNV-GL III YMS (M21)
 NAKS/HAKC 1.2MM
 UKCA EN 13479
 VdTÜV 19755

CHEMICAL COMPOSITION

| | All Weld Metal (%) | | Wire/Strip (%) | |
|----|--------------------|----------|----------------|-------|
| | 80Ar/20CO2 (M21) | CO2 (C1) | 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 |
| Cr | | | | |
| Ni | 0.8 | 0.8 | 0.8 | 0.9 |
| Mo | | | | |
| Cu | 0.3 | 0.3 | 0.25 | 0.60 |



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|-------------------------------------|-------------------------------|--------------------------------|--------------------|------------------------|------------------------|---------------|

MECHANICAL PROPERTIES OF WELD METAL

All Weld Metal

| Standard | Shielding Gas | Condition | Rp0.2 [MPa/ksi] | | Rm [MPa/ksi] | | | A4 [%] | | A5 [%] | |
|----------|------------------|-----------|-----------------|--------|--------------|--------|--------|--------|-----|--------|-----|
| | | | Min | Typ | Min | Max | Typ | Min | Typ | Min | Typ |
| AWS | 80Ar/20CO2 (M21) | As welded | | 540/78 | 550/80 | | 625/91 | | 26 | | |
| AWS | 98Ar/2O2 (M13) | As welded | | 580/84 | | | 650/94 | | 22 | | |
| EN | 80Ar/20CO2 (M21) | As welded | 460/67 | 510/74 | 530/77 | 680/99 | 620/90 | | | 20 | 23 |
| EN | CO2 (C1) | As welded | 420/61 | 470/68 | 500/73 | 640/93 | 580/84 | | | 20 | 25 |

Comments:

Interpass temp 170-200°C

Interpass temp 170-200°C

| Standard | Shielding Gas | Condition | Temp [°C/°F] | Charpy V [J/ft-lb] | |
|----------|------------------|-----------|---|--------------------|--|
| | | | | Min | Typ |
| AWS | 80Ar/20CO2 (M21) | As welded | 20/68 0/32 -20/-4 -40/-40 -60/-76 | | 140/104 140/104 110/81 80/59 50/37 |
| AWS | 98Ar/2O2 (M13) | As welded | 20/68 0/32 -20/-4 -40/-40 -60/-76 | | 140/104 100/74 70/52 30/22 |
| EN | 80Ar/20CO2 (M21) | As welded | 20/68 0/32 -20/-4 -40/-40 -60/-76 | 47/35 | 60/44 |
| EN | CO2 (C1) | As welded | 20/68 0/32 -20/-4 -40/-40 -60/-76 | 47/35 | 65/48 |

Comments:



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ECONOMICS & CURRENT DATA

| Dimension | Current (A) | | W | η | H | | | Feed | | | U | | |
|-----------------------|-------------|-----|----|--------|------------------------|-------------------------|-----|---------------------------|----------------------------|-----|-----|-----|-----|
| | Min | Max | | | Nom | Nom | Min | Max | Nom | Min | Max | Nom | Min |
| 0.8 mm (0.030 in.) | 40 | 170 | 12 | 95 | 0.4 kg/h (0.9 lb/h) | 2.6 kg/h (5.7 lb/h) | | 2.0 m/min (79 in/min) | 10.8 m/min (425 in/min) | | 16 | 22 | |
| 1.0 mm (0.040 in.) | 80 | 280 | 15 | 96 | 1.0 kg/h (2.2 lb/h) | 5.4 kg/h (11.9 lb/h) | | 2.7 m/min (106 in/min) | 14.7 m/min (579 in/min) | | 18 | 28 | |
| 1.2 mm (0.047 in.) | 120 | 350 | 18 | 97 | 1.5 kg/h (3.3 lb/h) | 6.6 kg/h (14.6 lb/h) | | 2.7 m/min (106 in/min) | 12.4 m/min (488 in/min) | | 20 | 33 | |
| 1.4 mm (0.055 in.) | 120 | 350 | 18 | 97 | 1.5 kg/h (3.3 lb/h) | 6.6 kg/h (14.6 lb/h) | | 2.7 m/min (106 in/min) | 12.4 m/min (488 in/min) | | 20 | 33 | |
| 1.6 mm (1/16 in.) | 225 | 480 | 20 | 98 | 3.3 kg/h (7.3 lb/h) | | | 3.1 m/min (122 in/min) | 8.1 m/min (319 in/min) | | 26 | 38 | |

- W** = Gas consumption (l/min)
- η** = Filler metal efficiency (g weld metal x 100 / g wire)(%)
- H** = Deposition rate (kg weld metal/hour arc time)
- Feed** = Wire feed speed (m/min)
- U** = Arc voltage (V)