



Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK AristoRod 13.22

Signed by Mats Linde	Approved by M Bergenstråhle/Christos Skodras	Reg no EN004633	Cancelling EN004632	Reg date 2008-12-02	Page 1 (2)
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REASON FOR ISSUE

EN 12070 replaced by EN ISO 21952-A and 21952-B

GENERAL

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.

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.

Shielding Gas: Ar + 15-25 % CO₂, CO₂

Alloy Type: Low alloyed (Cr 2.5% and Mo 1.0%)

CLASSIFICATIONS Wire Electrode

EN ISO 21952-A	G CrMo2Si
EN ISO 21952-B	G 62 M 2C1M3
SFA/AWS A5.28	ER90S-G

APPROVALS

Not applicable

CHEMICAL COMPOSITION

	All Weld Metal (%)	Wire/Strip (%)	
	Nom	Min	Max
	80Ar/20CO ₂ (M21)		
C	0.06	0.04	0.10
Si	0.6	0.50	0.80
Mn	1.0	0.80	1.20
P	0.010		0.020
S	0.015		0.020
Cr	2.5	2.30	2.70
Mo	1.0	0.90	1.20
Cu			0.15



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MECHANICAL PROPERTIES OF WELD METAL

All Weld Metal

Properties	EN 80Ar/20CO2 (M21)	EN 80Ar/20CO2 (M21)	AWS 80Ar/20CO2 (M21)	AWS 80Ar/20CO2 (M21)
	Stress relieved+ 750°C 0.5h Typ	Stress relieved 750°C 0.5h Min Typ	As welded+ Typ	As welded Typ
Rp0.2 (MPa)	410	400 480	680	750
Rp1.0 (MPa)	450	510	750	795
Rm (MPa)	520	500 590	880	890
A4-A5 (%)	24	18 25	19	19
Z (%)	67	69	51	58
Charpy V at 20°C (J)		47 150		55
Charpy V at -20°C (J)		120		
Charpy V at -40°C (J)		85		30
Comments:	Tested at 450°C.	Comments: Tested at 20°C.	Comments: Tested at 450°C	Comments: Tested at 20°C.

Comments:

Elongation=A5

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)			η Nom	H		Feed		U	
	Min	Max	Nom		Min	Max	Min	Max	Min	Max
1.0	80	280	15		1.0	5.4	2.7	14.7	18	28
1.2	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)

η = Recovery, g weld metal / 100g wire (%)

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

Feed = Feeding rate (m/min)

U = Arc voltage (V)

OTHER DATA

Preheat and interpass temperature 200-350°C.

Usually welding is followed by a stress relieving heat treatment at 600-700°C.