



Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK AristoRod 13.08

Prepared by Mats Linde	Qualified by Tero Tolonen	Approved by Per-Erik Andersson	Reg no EN006220	Cancelling EN005577	Reg date 2013-09-13	Page 1 (2)
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REASON FOR ISSUE

Classification and approval update.

GENERAL

The non copper coated OK AristoRod 13.08 is a ER80S-D2 classified, manganese-molybdenum (1,6% Mn, 0,4% Mo), solid wire for GMAW of creep resistant steels of the same type, such as pipes in pressure vessels and boilers with a working temperature of up to 500 °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 13.08 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 (1,6%mn, 0.4 % Mo)

CLASSIFICATIONS Weld Metal

EN ISO 14341-A G 46 0 C1 4Mo

EN ISO 14341-A G 50 4 M21 4Mo

CLASSIFICATIONS Wire Electrode

EN ISO 14341-A G 4Mo

SFA/AWS A5.28 ER80S-D2

CAN/CSA-ISO B-G 55A 3 C G4M31
14341

CHEMICAL COMPOSITION

	All Weld Metal (%)	Wire/Strip (%)	
	Nom	Min	Max
C	0.07	0.07	0.12
Si	0.5	0.50	0.80
Mn	1.6	1.70	2.10
P	0.01		0.025
S	0.01		0.025
Ni	0.05		0.15
Mo	0.4	0.40	0.60
Cu	0.15		0.15
Others tot			0.50



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MECHANICAL PROPERTIES OF WELD METAL

All Weld Metal

Properties	AWS CO ₂ (C1) As welded		EN 80Ar/20CO ₂ (M21) As welded		
	Min	Typ	Min	Max	Typ
Rp0.2 (MPa)	470	540	500		590
Rm (MPa)	550	645	560	720	685
A4-A5 (%)	17	25	18		24
Z (%)		60			64
at 20°C (J)		90			140
at -20°C (J)		36			100
at -29°C (J)	27				
at -40°C (J)		38	47		80

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	H		Feed		U	
	Min	Max			Nom	Nom	Min	Max	Min	Max
\emptyset										
0.8	40	170	12		0,4	2,6	2	10,8	16	22
0.9	70	280	14		1	5,4	2,7	14,7	18	28
1.0	90	300	14		1	5,4	2,7	14,7	18	28
1.2	120	350	18		1,5	6,6	2,7	12,4	20	33
1.6	225	480	30		3,3	11,6	3,10	12	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)