



Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK AristoRod 69

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
Christoffer Svensson	P-O Oskarsson	Helene Rasmuson	EN010886	EN010424	2023-10-20	1 (3)

REASON FOR ISSUE

UKCA Approval added. Mechanical data table updated.

GENERAL

The non copper coated OK AristoRod 69 is a low-alloyed, chromium-nickel-molybdenum (0,3% Cr, 1,4% Ni, 0,25% Mo), solid wire for GMAW of high tensile strength steels requiring tough weld metal for critical applications. Also suitable when high impact strength at lower temperatures is required.

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

Shielding Gas: M20, M21 (EN ISO 14175)

Alloy Type: Low alloyed (1.4 % Ni, 0.3 % Cr, 0.3 % Mo)

CLASSIFICATIONS Weld Metal (as welded)

EN ISO 16834-A G 69 4 M20 Mn3Ni1CrMo
EN ISO 16834-A G 69 4 M21 Mn3Ni1CrMo

CLASSIFICATIONS Wire Electrode

EN ISO 16834-A G Mn3Ni1CrMo
SFA/AWS A5.28 ER110S-G

APPROVALS

ABS ER 110S-G (M21)
CE EN 13479
DB 42.039.33
DNV G 69 4 M Mn3Ni1CrMo
UKCA EN 13479
VdTÜV 11837

CHEMICAL COMPOSITION

All Weld Metal (%) Wire/Strip (%)

	80Ar/20CO2 (M21)		
	Nom	Min	Max
C	0.06		0.12
Si	0.6	0.4	0.7
Mn	1.6	1.5	1.8
P	0.01		0.015
S	0.01		0.015
Cr	0.3	0.20	0.40
Ni	1.4	1.20	1.60
Mo	0.25	0.2	0.3
V	0.07	0.05	0.10
Cu	0.07		0.15



Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK AristoRod 69

Prepared by Christoffer Svensson	Qualified by P-O Oskarsson	Approved by Helene Rasmuson	Reg no EN010886	Cancelling EN010424	Reg date 2023-10-20	Page 2 (3)
-------------------------------------	-------------------------------	--------------------------------	--------------------	------------------------	------------------------	---------------

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		715/104	760/110		805/117		17		
EN	80Ar/20CO2 (M21)	As welded	690/100	730/106	770/112	940/136	800/116			17	19
EN	80Ar/20CO2 (M21)	Stress relieved 620°C 15h		690/100			750/109				20
EN	92Ar/8CO2 (M20)	As welded	690/100	725/105	770/112	940/136	780/113			17	19

Comments:

Standard	Shielding Gas	Condition	Temp [°C/°F]	Charpy V [J/ft-lb]	
				Min	Typ
AWS	80Ar/20CO2 (M21)	As welded	20/68 -20/-4 -30/-22 -40/-40		80/59 60/44
EN	80Ar/20CO2 (M21)	As welded	20/68 -20/-4 -30/-22 -40/-40	47/35	100/74 73/54
EN	80Ar/20CO2 (M21)	Stress relieved 620°C 15h	20/68 -20/-4 -30/-22 -40/-40		130/96 60/44 60/44
EN	92Ar/8CO2 (M20)	As welded	20/68 -20/-4 -30/-22 -40/-40	47/35	65/48

Comments:



Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK AristoRod 69

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
Christoffer Svensson	P-O Oskarsson	Helene Rasmuson	EN010886	EN010424	2023-10-20	3 (3)

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.)	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	
0.9 mm (0.035 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	
1.0 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	
1.6 mm (1/16 in.)	225	480	22	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)