OK AristoRod 12.50

OK Aristorod 12.50 is a bare Mn-Si-alloyed G3Si1/ER70S-6 solid wire for the GMAW of non-alloyed steels, as used in general construction, automotive components, pressure vessel fabrication and shipbuilding. OK Aristorod 12.50 is treated with ESAB's unique Advanced Surface Characteristics (ASC) technology, taking MAG welding operations to new levels of performance and all-round efficiency, especially in robotic and mechanised welding. Characteristic features include excellent start properties; trouble-free feeding at high wire speeds and lengthy feed distances; a very stable arc at high welding currents; extremely low levels of spatter; low fume emission; reduced contact tip wear and improved protection against corrosion of the wire.

Classifications Weld Metal:	EN ISO 14341-A:G 38 3 C1 3Si1, EN ISO 14341-A:G 42 4 M21 3Si1, EN ISO 14341-A:G 42 4 M20 3Si1
Classifications Wire Electrode:	EN ISO 14341-A:G 3Si1, SFA/AWS A5.18: ER70S-6, CAN/CSA-ISO 14341: B-G 49A 3 C1 S6, JIS Z 3312: YGW 12 (C1)
Approvals:	GL 3YS, DNV III YMS, VdTÜV 10052, PRS 3YS, RS 3YMS, VdTÜV 10052, ABS 3Y SA, BV SA3YM, CE EN 13479, CWB B-G 49A 3 C1 S6 (B-G 49A 3 C G6), DB 42.039.29, DNV III YMS, NAKS/HAKC 1.0MM-1.6MM, NAKS/HAKC 1.0MM-1.6MM, NAKS/HAKC 1.0MM-1.6MM, NAKS/HAKC 1.0MM-1.6MM, GL 3YS, JIS YGW12 (C1), LR 3YS H15, LR 3YS H15, PRS 3YS, RINA 3Y S (C1), RINA 3Y S (M21), RS 3YMS

Approvals are based on factory location. Please contact ESAB for more information.

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Reduction in Area	Elongation
100% CO2				
As Welded	448 MPa (65 ksi)	538 MPa (78 ksi)	70 %	25 %
75% Ar - 25% CO2				
As Welded	455 MPa (66 ksi)	565 MPa (82 ksi)	61 %	28 %
90% Ar - 10% CO2				
As Welded	455 MPa (66 ksi)	565 MPa (82 ksi)	56 %	27 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
As Welded	-20 °C (-4 °F)	90 J (70 ft-lb)
As Welded	-30 °C (-22 °F)	70 J (51 ft-lb)
As Welded	-40 °C (-40 °F)	60 J (44 ft-lb)

Typical Wire Composition %

C	Mn	Si	S	P	Ni	Cr	Mo	Cu
0.08	1.46	0.85	0.012	0.013	0.04	0.03	0.01	0.07

410843-en_US-FactSheet_Main-01 03/21/17

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Deposition Data			
Diameter	**Current**	**Deposition Rate**	**Efficiency (%)**
100% CO2			
0.8 mm (.030 in.)	100 A	1.13 kg/h (2.5 lb/h)	93 %
0.8 mm (.030 in.)	150 A	1.77 kg/h (3.9 lb/h)	93 %
0.8 mm (.030 in.)	200 A	2.95 kg/h (6.5 lb/h)	93 %
0.8 mm (.030 in.)	75 A	0.82 kg/h (1.8 lb/h)	93 %
0.9 mm (.035 in.)	100 A	1.18 kg/h (2.6 lb/h)	93 %
0.9 mm (.035 in.)	150 A	1.81 kg/h (4.0 lb/h)	93 %
0.9 mm (.035 in.)	200 A	2.68 kg/h (5.9 lb/h)	93 %
0.9 mm (.035 in.)	250 A	3.90 kg/h (8.6 lb/h)	93 %
0.9 mm (.035 in.)	80 A	0.91 kg/h (2.0 lb/h)	93 %
1.2 mm (.045 in.)	100 A	0.86 kg/h (1.9 lb/h)	93 %
1.2 mm (.045 in.)	125 A	1.22 kg/h (2.7 lb/h)	93 %
1.2 mm (.045 in.)	150 A	1.54 kg/h (3.4 lb/h)	93 %
1.2 mm (.045 in.)	200 A	2.40 kg/h (5.3 lb/h)	93 %
1.2 mm (.045 in.)	250 A	3.36 kg/h (7.4 lb/h)	93 %
1.2 mm (.045 in.)	300 A	4.40 kg/h (9.7 lb/h)	93 %
1.2 mm (.045 in.)	350 A	5.67 kg/h (12.5 lb/h)	93 %
1.6 mm (1/16 in.)	250 A	2.81 kg/h (6.2 lb/h)	93 %
1.6 mm (1/16 in.)	275 A	3.31 kg/h (7.3 lb/h)	93 %
1.6 mm (1/16 in.)	300 A	3.86 kg/h (8.5 lb/h)	93 %
1.6 mm (1/16 in.)	350 A	4.85 kg/h (10.7 lb/h)	93 %
1.6 mm (1/16 in.)	400 A	6.03 kg/h (13.3 lb/h)	93 %
1.6 mm (1/16 in.)	450 A	7.48 kg/h (16.5 lb/h)	93 %
75% Ar - 25% CO2			
0.8 mm (.030 in.)	100 A	1.18 kg/h (2.6 lb/h)	96 %
0.8 mm (.030 in.)	150 A	1.81 kg/h (4.0 lb/h)	96 %
0.8 mm (.030 in.)	200 A	3.04 kg/h (6.7 lb/h)	96 %
0.8 mm (.030 in.)	75 A	0.86 kg/h (1.9 lb/h)	96 %
0.9 mm (.035 in.)	100 A	1.22 kg/h (2.7 lb/h)	96 %
0.9 mm (.035 in.)	150 A	1.86 kg/h (4.1 lb/h)	96 %
0.9 mm (.035 in.)	200 A	2.72 kg/h (6.0 lb/h)	96 %
0.9 mm (.035 in.)	250 A	3.99 kg/h (8.8 lb/h)	96 %
0.9 mm (.035 in.)	80 A	0.95 kg/h (2.1 lb/h)	96 %
1.2 mm (.045 in.)	100 A	0.91 kg/h (2.0 lb/h)	96 %
1.2 mm (.045 in.)	125 A	1.27 kg/h (2.8 lb/h)	96 %

410843-en_US-FactSheet_Main-01 03/21/17

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Deposition Data			
Diameter	**Current**	**Deposition Rate**	**Efficiency (%)**
1.2 mm (.045 in.)	150 A	1.59 kg/h (3.5 lb/h)	96 %
1.2 mm (.045 in.)	200 A	2.49 kg/h (5.5 lb/h)	96 %
1.2 mm (.045 in.)	250 A	3.45 kg/h (7.6 lb/h)	96 %
1.2 mm (.045 in.)	300 A	4.53 kg/h (10.0 lb/h)	96 %
1.2 mm (.045 in.)	350 A	5.85 kg/h (12.9 lb/h)	96 %
1.6 mm (1/16 in.)	250 A	2.90 kg/h (6.4 lb/h)	96 %
1.6 mm (1/16 in.)	275 A	3.45 kg/h (7.6 lb/h)	96 %
1.6 mm (1/16 in.)	300 A	3.99 kg/h (8.8 lb/h)	96 %
1.6 mm (1/16 in.)	350 A	4.99 kg/h (11.0 lb/h)	96 %
1.6 mm (1/16 in.)	400 A	6.21 kg/h (13.7 lb/h)	96 %
1.6 mm (1/16 in.)	450 A	7.76 kg/h (17.1 lb/h)	96 %
92% Ar - 8% CO2			
0.8 mm (.030 in.)	100 A	1.18 kg/h (2.6 lb/h)	98 %
0.8 mm (.030 in.)	150 A	1.86 kg/h (4.1 lb/h)	98 %
0.8 mm (.030 in.)	200 A	3.08 kg/h (6.8 lb/h)	98 %
0.8 mm (.030 in.)	75 A	0.91 kg/h (2.0 lb/h)	98 %
0.9 mm (.035 in.)	100 A	1.22 kg/h (2.7 lb/h)	98 %
0.9 mm (.035 in.)	150 A	1.90 kg/h (4.2 lb/h)	98 %
0.9 mm (.035 in.)	200 A	2.81 kg/h (6.2 lb/h)	98 %
0.9 mm (.035 in.)	250 A	4.08 kg/h (9.0 lb/h)	98 %
0.9 mm (.035 in.)	80 A	1.00 kg/h (2.2 lb/h)	98 %
1.2 mm (.045 in.)	100 A	0.95 kg/h (2.1 lb/h)	98 %
1.2 mm (.045 in.)	125 A	1.27 kg/h (2.8 lb/h)	98 %
1.2 mm (.045 in.)	150 A	1.63 kg/h (3.6 lb/h)	98 %
1.2 mm (.045 in.)	200 A	2.54 kg/h (5.6 lb/h)	98 %
1.2 mm (.045 in.)	250 A	3.58 kg/h (7.8 lb/h)	98 %
1.2 mm (.045 in.)	300 A	4.63 kg/h (10.2 lb/h)	98 %
1.2 mm (.045 in.)	350 A	5.99 kg/h (13.2 lb/h)	98 %
1.6 mm (1/16 in.)	250 A	2.95 kg/h (6.5 lb/h)	98 %
1.6 mm (1/16 in.)	275 A	3.49 kg/h (7.7 lb/h)	98 %
1.6 mm (1/16 in.)	300 A	4.08 kg/h (9.0 lb/h)	98 %
1.6 mm (1/16 in.)	350 A	5.13 kg/h (11.3 lb/h)	98 %
1.6 mm (1/16 in.)	400 A	6.35 kg/h (14.0 lb/h)	98 %
1.6 mm (1/16 in.)	450 A	7.89 kg/h (17.4 lb/h)	98 %

410843-en_US-FactSheet_Main-01 03/21/17