

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, 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, GL 3YS, JIS YGW12 (C1), 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.

Alloy Type:	Carbon-manganese steel (Mn/Si-alloyed)
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Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
EN 80Ar/20CO2 (M21)			
As welded	480 MPa	560 MPa	26 %
Stress relieved 15 hr 620 °C	380 MPa	495 MPa	28 %
EN CO2 (C1)			
As welded	450 MPa	540 MPa	25 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
EN 80Ar/20CO2 (M21)		
As welded	20 °C	130 J
As welded	-20 °C	90 J
As welded	-30 °C	70 J
As welded	-40 °C	60 J
Stress relieved 15 hr 620 °C	20 °C	120 J
Stress relieved 15 hr 620 °C	-20 °C	90 J
EN CO2 (C1)		
As welded	20 °C	110 J
As welded	-29 °C	98 J

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Typical Wire Composition %		
C	Mn	Si
0.08	1.46	0.85

Deposition Data				
Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
0.8 mm	60-200 A	18-24 V	3.2-10.0 m/min	0.8-2.5 kg/h
0.9 mm	70-250 A	18-26 V	3.0-12.0 m/min	0.8-3.3 kg/h
1.0 mm	80-300 A	18-32 V	2.7-15.0 m/min	1.0-5.5 kg/h
1.14 mm	100-350 A	18-34 V	2.6-15.0 m/min	1.2-7.0 kg/h
1.2 mm	120-380 A	18-35 V	2.5-15.0 m/min	1.3-8.0 kg/h
1.32 mm	130-400 A	19-35 V	2.4-15.0 m/min	1.5-8.5 kg/h
1.4 mm	150-420 A	22-36 V	2.3-15.0 m/min	1.6-8.7 kg/h
1.6 mm	225-550 A	28-38 V	2.3-15.0 m/min	2.1-11.4 kg/h