

OK AristoRod 12.63

OK AristoRod 12.63 is a non copper coated Mn-Si-alloyed G4Si1/ER70S-6 solid wire for the GMAW of non-alloyed steels, as used in general construction, automotive components, pressure vessel fabrication and shipbuilding. It has a slightly higher manganese and silicon content than OK AristoRod 12.50 to increase the weld metal strength. This also promotes a low sensitivity to surface impurities and contributes to smooth and sound welds. OK AristoRod 12.63 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.

Specifications

Classifications

EN ISO 14341-A : G 42 3 C1 4Si1
 EN ISO 14341-A : G 46 5 M21 4Si1
 EN ISO 14341-B : G 55A 5 M21 S6
 EN ISO 14341-A : G 4Si1
 SFA/AWS A5.18 : ER70S-6
 CSA W48 : B-G 49A 3 C1 S6
 EN ISO 14341-B : G S6

Approvals

ABS : 3YSA (C1 & M21)
 BV : SA3YM (C1 & M21)
 CE : EN 13479
 CWB : B-G 49A 3 C1 S6 (B-G 49A 3 C G6)
 DB : 42.039.30
 DNV-GL : III YMS (C1 & M21)
 LR : 3YS H15 (C1 & M21)
 NAKS/HAKC : 1.2MM
 VdTÜV : 10051

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

Alloy Type

Mn-Si alloyed

Typical Tensile Properties

Condition	Conditional Statement	Yield Strength	Tensile Strength	Elongation
EN 80Ar/20CO2 (M21)				
As Welded	As welded	490 MPa	590 MPa	29 %
EN CO2 (C1)				
As Welded	As welded	460 MPa	570 MPa	28 %
EN 80Ar/20CO2 (M21)				
Stress Relieved		385 MPa	520 MPa	28 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
EN 80Ar/20CO2 (M21)		
As Welded	-30 °C	100 J
As Welded	-40 °C	90 J
As Welded	-50 °C	80 J
EN CO2 (C1)		
As Welded	-30 °C	75 J
EN 80Ar/20CO2 (M21)		
Stress Relieved	-20 °C	90 J
As Welded	-20 °C	120 J

Typical Wire Composition %

C	Mn	Si
0.074	1.68	0.95

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Typical Weld Metal Analysis %

C	Mn	Si	S	P	Cu
0.10	1.28	0.80	0.013	0.013	0.05

Deposition Data

Diameter	Current	Voltage
0.8 mm	60-185 A	18-24 V
0.9 mm	70-250 A	18-26 V
1.0 mm	80-300 A	18-32 V
1.2 mm	120-380 A	18-35 V
1.4 mm	150-420 A	22-36 V
1.6 mm	225-550 A	28-38 V