

OK AristoRod 13.09

The non copper coated OK AristoRod 13.09 is a low-alloyed, molybdenum (0,5% 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 13.09 delivered in the unique Esab Octagonal Marathon Pac is excellent in mechanised welding applications.

Specifications

Classifications	EN ISO 14341-A : G 38 0 C1 2Mo EN ISO 14341-A : G 46 2 M21 2Mo EN ISO 14341-A : G 2Mo EN ISO 21952-A : G MoSi EN ISO 21952-B : G 1M3 SFA/AWS A5.28 : ER70S-A1 (ER80S-G)
Approvals	CE : EN 13479 DB : 42.039.31 DNV-GL : III YMS (M21) UKCA : EN 13479 VdTÜV : 10088

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

Alloy Type	Low alloyed (0.5 % Mo)
Shielding Gas	M21, C1 (EN ISO 14175)

Typical Tensile Properties

Condition	Conditional Statement	Yield Strength	Tensile Strength	Elongation
M21				
As Welded+ 450°C)	Tested at 450°C	425 MPa	570 MPa	20 %
Stress relieved+ (Tested	Tested at 450°C	370 MPa	490 MPa	23 %
Stress Relieved 15 hour(s) 620 °C	Tested at 450°C	430 MPa	545 MPa	26 %
As Welded	Tested at 450°C	515 MPa	630 MPa	26 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
M21		
Stress Relieved	-40 °C	90 J
Stress Relieved	-20 °C	95 J
As Welded	-40 °C	57 J
Stress Relieved	20 °C	150 J
As Welded	20 °C	117 J
As Welded	-20 °C	75 J
Stress Relieved	0 °C	130 J

Typical Wire Composition %

C	Mn	Si	Ni	Cr	Mo
0.094	1.09	0.61	0.04	0.07	0.45

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Mo
0.1	1.1	0.7	0.015	0.010	0.5

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Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
0.8 mm	40-170 A	16-22 V	2.0-10.8 m/min	0.4-2.6 kg/h
1.0 mm	80-280 A	18-28 V	2.7-14.7 m/min	1.0-5.4 kg/h
1.2 mm	120-350 A	20-33 V	2.7-12.4 m/min	1.5-6.6 kg/h