

Atom Arc 9018



Atom Arc 9018 electrodes are used for attachment welds on T-1, HY-80 and HY-90 steels and other high tensile, quenched and tempered steels.

Classifications	ASME SFA 5.5 AWS A5.5: E9018M H4R
Approvals	ABS 3Y LR 3Ym(H15) QPL-22200/1 MIL-9018-M
Industry	Bridge Construction Civil Construction Industrial and General Fabrication Mobile Equipment Railcars Ship/Barge Building

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

Welding Current	AC or DC+
Coating Type	Low-hydrogen iron powder

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Reduction in Area	Elongation
Stress Relieved °C	470 MPa	635 MPa	72 %	27 %
As Welded	580 MPa	655 MPa	69 %	28 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
As Welded	-51 °C	81 J
Stress Relieved	-51 °C	92 J

Typical Wire Composition %

C	Mn	Si	S	P	Ni	Mo
0.043	1.00	0.26	0.01	0.012	1.60	0.29

Deposition Data

Diameter	Optimal Amps	Current	Deposition Rate	Efficiency %
3.2 mm (1/8 in.)	120 A	90-160 A	1.2 kg/h (2.6 lb/h)	71.6 %
3.2 mm (1/8 in.)	140 A	90-160 A	1.2 kg/h (2.7 lb/h)	70.9 %
4.8 mm (3/16 in.)	200 A	200-300 A	2.2 kg/h (4.9 lb/h)	76.4 %
4.8 mm (3/16 in.)	250 A	200-300 A	2.4 kg/h (5.4 lb/h)	74.6 %
2.4 mm (3/32 in.)	90 A	70-100 A	0.8 kg/h (1.7 lb/h)	66.3 %
4.0 mm (5/32 in.)	140 A	130-220 A	1.1 kg/h (3.1 lb/h)	75 %
4.0 mm (5/32 in.)	170 A	130-220 A	1.7 kg/h (3.8 lb/h)	73.5 %