

Atom Arc 8018-C1



Atom Arc 8018-C1 electrodes deposit weld metal which contains nominal 2.33% Ni. Their principal use is in the welding of nickel-bearing steels for applications where toughness of the weld metal at low temperatures is important.

Classifications	AWS A5.5 : E8018-C1 H4R ASME SFA 5.5
Approvals	ABS 3Y CWB CSA W48 E5518-C1 LR 3m 3Ym(H15)
Industry	Bridge Construction Industrial and General Fabrication Mobile Equipment Petrochemical

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

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

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
As Welded	-59 °C (-75 °F)	64 J (47 ft-lb)
Stress Relieved 1hr 621°C (1150°F)	-59 °C (-75 °F)	87 J (64 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	V	Cu
0.047	1.13	0.33	0.01	0.01	2.41	0.06	0.02	0.009	0.122

Typical Weld Metal Analysis %

Nb
0.003

Deposition Data

Diameter	Optimal Amps	Current	Deposition Rate	Deposition Efficiency %
6.4 mm (1/4 in.)	350 A	300-400 A	3.9 kg/h (8.7 lb/h)	77 %
6.4 mm (1/4 in.)	300 A	300-400 A	3.5 kg/h (7.7 lb/h)	78 %
5.6 mm (7/32 in.)	300 A	250-350 A	3.3 kg/h (7.2 lb/h)	74 %
5.6 mm (7/32 in.)	250 A	250-350 A	2.9 kg/h (6.5 lb/h)	75 %
4.8 mm (3/16 in.)	250 A	200-300 A	2.4 kg/h (5.4 lb/h)	74.6 %
4.8 mm (3/16 in.)	200 A	200-300 A	2.2 kg/h (4.9 lb/h)	76.4 %
4.0 mm (5/32 in.)	170 A	130-220 A	1.7 kg/h (3.8 lb/h)	73.5 %
4.0 mm (5/32 in.)	140 A	130-220 A	1.1 kg/h (3.1 lb/h)	75 %
3.2 mm (1/8 in.)	140 A	90-160 A	1.2 kg/h (2.7 lb/h)	70.9 %
3.2 mm (1/8 in.)	120 A	90-160 A	1.2 kg/h (2.6 lb/h)	71.6 %
2.4 mm (3/32 in.)	90 A	70-100 A	0.8 kg/h (1.7 lb/h)	66.3 %