Atom Arc 8018-CM

Atom Arc 8018-CM electrodes contain 1 1/4% Cr and 1/2% Mo as alloy addition. They are used for the welding of such steels as 1/2% Cr - 1/2% Mo, 1% Cr - 1/2% Mo, and 1 1/4% Cr - 1/2% Mo, which are used principally in power piping and boiler work for the fabrication of plates, pipes, tubes, castings, and forgings.

Classifications	AWS A5.5 : E8018-B2 H4R ASME SFA 5.5
Approvals	ABS AWS A5.5: E8018-B2 MIL-E-22200/8 MIL-8018-B2
Industry	Pipeline Power Generation Pressure Vessels

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
Stress Relieved 8hr 607°C (1125°F)	0 °C (30 °F)	108 J (80 ft-lb)
Stress Relieved 8hr 620°C (1150°F)	0 °C (30 °F)	113 J (83 ft-lb)
Stress Relieved 8hr 677°C (1250°F)	0 °C (30 °F)	133 J (98 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Cr	Mo	X-bar
0.06	0.80	0.50	0.008	0.011	1.30	0.57	< 15

Deposition Data

Diameter	Optimal Amps	Current	Deposition Rate	Deposition Efficiency %
2.4 mm (3/32 in.)	90 A	70-100 A	0.8 kg/h (1.7 lb/h)	66.3 %
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 %
4.0 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 %
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 %
5.6 mm (7/32 in.)	250 A	250-350 A	2.9 kg/h (6.5 lb/h)	75 %
5.6 mm (7/32 in.)	300 A	250-350 A	3.3 kg/h (7.2 lb/h)	74 %
6.4 mm (1/4 in.)	300 A	300-400 A	3.5 kg/h (7.7 lb/h)	78 %
6.4 mm (1/4 in.)	350 A	300-400 A	3.9 kg/h (8.7 lb/h)	77 %

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