

Atom Arc 8018-NM



Atom Arc 8018-NM electrodes are used for welding quenched and tempered manganese-molybdenum-nickel steels. This electrode was developed for use in pressure vessels for nuclear reactors where long terms stress relief is required.

Classifications	AWS A5.5 : E8018-NM H4R ASME SFA 5.5
Industry	Offshore Oil Pressure Vessels Nuclear

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

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
Stress Relieved 16hr 621°C (1150°F)	-18 °C (0 °F)	160 J (118 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Mo
0.043	1.07	0.58	0.014	0.018	0.95	0.47

Deposition Data

Diameter	Optimal Amps	Current	Deposition Rate	Deposition Efficiency %
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 %