

Atom Arc 9018-SR

Atom Arc 9018-SR is an all-position, low hydrogen iron powder electrode with outstanding moisture resistance and welder appeal. Contains higher Mn, Mo and Ni to maintain greater than 90,000 psi tensile strength after long term stress relief.

Specifications

Classifications	ASME SFA 5.5 : E9018-G H4R AWS A5.5 : E9018-G H4R
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Welding Current	AC, DC+
Diffusible Hydrogen	< 4.0 ml/100g
Alloy Type	Low alloyed (Mn - 1% Ni - 0.45% Mo)

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
Stress Relieved 20 hour(s) 621 °C (1150 °F)	601 MPa (87 ksi)	684 MPa (99 ksi)	24 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
Stress Relieved	16 °C (61 °F)	123 J (91 ft-lb)
Stress Relieved	-46 °C (-51 °F)	49 J (36 ft-lb)

Typical Weld Metal Analysis %

Mn	S	P	Ni	Cr	Mo	Cu
1.60	0.009	0.016	1.05	0.03	0.45	0.01

Deposition Data

Diameter	Current	Voltage	Deposition Efficiency (%)	Burn-off Time /Electrode	Deposition Rate @ 90% I max
3.2 x 356.0 mm (1/8 x 14.0 in.)	90-160 A	23.9 V	72.23 %	70 sec	1.36 kg/h (3.0 lbs/h)
4.0 x 356.0 mm (5/32 x 14.0 in.)	130-220 A	24.3 V	72.06 %	75 sec	1.89 kg/h (4.2 lbs/h)