Atom Arc 8018-B3L

Atom Arc 8018-B3L electrodes contain 2 1/4% Cr and 1% Mo alloy additions with low carbon content. The electrode is designed for welding 2 1/4% Cr - 1% Mo steels. The rod operates with a very stable arc and minimal spatter. The low carbon analysis of the weld metal contributes to its crack resistance. The addition of Cr and Mo provide for the excellent creep and stress rupture properties of weldments subjected to elevated temperature service.

Specifications	
Classifications	ASME SFA 5.5 : E8018-B3LH4R AWS A5.5 : E8018-B3LH4R
Industry	Mobile Equipment Pipeline Power Generation

Welding Current	AC, DC+
Diffusible Hydrogen	< 4.0 ml/100g
Alloy Type	Low alloyed (Low Carbon - 2.25% Cr - 1% Mo)

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
Stress Relieved 1 hour(s) 690 °C (1274 °F)	598 MPa (87 ksi)	689 MPa (100 ksi)	24 %

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Cr	Mo	X-bar
0.04	0.70	0.40	0.015	0.017	2.30	1.10	<15

Deposition Data

Diameter	Current	Voltage	Deposition Efficiency (%)	Burn-off Time /Electrode	Deposition Rate @ 90% I max
2.4 x 356.0 mm (3/32 x 14.0 in.)	70-110 A	23.2 V	69.01 %	60 sec	0.92 kg/h (2.0 lbs/h)
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)