Atom Arc 10018

Atom Arc 10018 electrodes are used primarily for applications which require weld joints of at least 100 ksi (690 MPa) tensile strength, good ductility and crack resistance. Good notch toughness at temperatures as low as -60°F (-51°C) is possible with this electrode. Atom Arc 10018 can be used to weld HY-80 and T-1 steel.

Specifications	
Classifications	ASME SFA 5.5 : E10018M H4R AWS A5.5 : E10018M H4R
Approvals	ABS : E10018-M1 (H4)
Industry	Ship/Barge Building Railcars Mobile Equipment Bridge Construction Industrial and General Fabrication

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

Welding Current	AC, DC+
Diffusible Hydrogen	< 4.0 ml/100g
Alloy Type	Low alloyed (1.7% Ni - 0.3% Mo)

Typical Tensile Properties			
Condition	**Yield Strength**	**Tensile Strength**	**Elongation**
As Welded	685 MPa	745 MPa	24 %

Typical Charpy V-Notch Properties		
Condition	**Testing Temperature**	**Impact Value**
As Welded	-40 °C	62 J
As Welded	-50 °C	38 J

Typical Weld Metal Analysis %									
C	**Mn**	**Si**	**S**	**P**	**Ni**	**Cr**	**Mo**	**V**	**Cu**
0.051	1.46	0.31	0.011	0.013	1.72	0.25	0.27	0.010	0.105

Typical Weld Metal Analysis %
Nb
0.004

Deposition Data					
Diameter	**Current**	**Voltage**	**Efficiency (%)**	**Fusion time per electrode at 90% I max**	**Deposition Rate**
3.2 x 356.0 mm	90-160 A	23.9 V	72.23 %	70 sec	1.36 kg/h
4.0 x 356.0 mm	130-220 A	24.3 V	72.06 %	75 sec	1.89 kg/h
4.8 x 356.0 mm	200-300 A	24.3 V	71.04 %	74 sec	2.53 kg/h