ATOM ARC 7018 AWS A5.1: E7018

FEATURES

Atom Arc 7018 is an all-position low hydrogen moisture resistant electrode. The wider operating ranges and smooth weld metal transfer minimizes post weld clean up. This premium quality electrode meets a multitude of codes and welding specifications. Atom Arc 7018 was developed to weld carbon and low-alloy steels, including a variety of hardenable steels.

CLASSIFICATIONS AND APPROVALS

- CERTIFIED BY C.W.B.- CSA W48
- ASME SFA 5.1
- L.R.- 3m,3Ym(H10)
- D.N.V.- 3Y(H10)
- A.B.S.- 2Y / AWS A5.1: E7018
- AWS A5.1: E7018H4R
- Mil-E-22200/1 Mil-7018

WELDING PROCESS

- SMAW (Stick)

INDUSTRIES

- Automotive
- Rail Road Car
- Bridge Construction
- General Fabrication
- Civil Construction
- Shipbuilding
- Mobile Machinery

TYPICAL MECHANICAL PROPERTIES

As Welded	
Yield Strength	68 ksi, 470 MPa
Tensile Strength	78 ksi, 540 MPa
Elongation in 2”	30%
Reduction in Area	75%
Stress Relieved 8 hrs. @ 1150°F (621°C)	
Yield Strength	57 ksi, 395 MPa
Tensile Strength	70 ksi, 485 MPa
Reduction in Area	77%
Elongation in 2”	33%

CHARPY V-NOTCH PROPERTIES

Testing Temperature -20°F (-29°C)	
As Welded	168 ft-lb, 225 J
Stress Relieved 8 hrs. @ 1150°F (621°C)	
	193 ft-lb, 260 J

WELD METAL ANALYSIS

C	0.045%
Mn	1.1%
Si	0.4%
P	0.015%
S	0.014%

ATOM ARC 7018 continued

DEPOSITION TABLE				
Diameter in (mm)	Optimal Current Amps	Current Range Amps	Deposition Rate lb/hr (kg/hr)	Efficiency %
3/32 (2.4)	90	70 - 100	1.7 (0.8)	66.3
1/8 (3.2)	120	90 - 160	2.6 (1.2)	71.6
	140	90 - 160	2.7 (1.2)	70.9
5/32 (4.0)	140	130 - 220	3.1 (1.4)	75
	170	130 - 220	3.8 (1.7)	73.5
3/16 (4.8)	200	200 - 300	4.9 (2.2)	76.4
	250	200 - 300	5.4 (2.4)	74.6
7/32 (5.6)	250	250 - 350	6.5 (2.9)	75
	300	250 - 350	7.2 (3.3)	74
1/4 (6.4)	300	300 - 400	7.7 (3.5)	78
	350	300 - 400	8.7 (3.9)	77

ATOM ARC 7018 continued

PART NUMBER / PRODUCT INFORMATION		
Part Number	Description	UPC
255015521	AA 7018 3/32X14X5#VALP	662303029050
255015554	AA 7018 3/32X14X10#VALP	662303029081
255013328	AA 7018 3/32X14X10#HS	662303016197
255014201	AA 7018 3/32X14X11#QP	662303028961
255013310	AA 7018 3/32X14X50#HS	662303016180
255015505	AA 7018 1/8X14X5#VALP	662303029036
255015539	AA 7018 1/8X14X10#VALP	662303029067
255011827	AA 7018 1/8X14X10#HS	662303016098
255014219	AA 7018 1/8X14X11#QP	662303028978
255011819	AA 7018 1/8X14X50#HS	662303016081
255015513	AA 7018 5/32X14X5#VALP	662303029043
255015547	AA 7018 5/32X14X10#VALP	662303029074
255015323	AA 7018 5/32X14X10#HS	662303016388
255014227	AA 7018 5/32X14X11#QP	662303028985
255015315	AA 7018 5/32X14X50#HS	662303016371
255015562	AA 7018 3/16X14X10#VALP	662303063658
255013120	AA 7018 3/16X14X10#HS	662303016142
255014235	AA 7018 3/16X14X11#QP	662303028992
255013112	AA 7018 3/16X14X50#HS	662303016135
255017311	AA 7018 7/32X18X50#HS	662303016548
255011413	AA 7018 1/4X18X50#HS	662303016043

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