

ATOM ARC 9018-CM

Tech Data Sheet

Industry

Power Generation
Process
Pipeline

Welding Process

SMAW (Stick)

Classifications/Approvals

AWS A5.5; E9018-B3H4R
MILITARY-MIL-E-0022200/8;
MIL-9018-B3
A.B.S.- AWS A5.5; E9018-B3
ASME SFA 5.5



Filler Metal Type

Low Alloy

AWS Classifications

AWS A5.5; E9018-B3H4R

The principal application of Atom Arc 9018-CM electrodes is for welding 2.5% Cr - 1% Mo steels commonly found in pressure vessels, heat exchangers, pipings and other related components.

Available Parts				
Part No.	Size	Length	Weight	Package
255071474	3/32	12 in.	40	Hermetically Sealed Can
255323321	3/32	12 in.	40	Hermetically Sealed Can
255071482	3/32	14 in.	10	Hermetically Sealed Can
255073322	3/32	14 in.	10	Hermetically Sealed Can
255071490	3/32	14 in.	50	Hermetically Sealed Can
255073314	3/32	14 in.	50	Hermetically Sealed Can
255071433	1/8	14 in.	10	Hermetically Sealed Can
255071821	1/8	14 in.	10	Hermetically Sealed Can
255071441	1/8	14 in.	50	Hermetically Sealed Can
255071813	1/8	14 in.	50	Hermetically Sealed Can
255071508	5/32	14 in.	10	Hermetically Sealed Can
255075327	5/32	14 in.	10	Hermetically Sealed Can
255071516	5/32	14 in.	50	Hermetically Sealed Can
255075319	5/32	14 in.	50	Hermetically Sealed Can
255071458	3/16	14 in.	10	Hermetically Sealed Can
255073124	3/16	14 in.	10	Hermetically Sealed Can
255071466	3/16	14 in.	50	Hermetically Sealed Can
255073116	3/16	14 in.	50	Hermetically Sealed Can
255071524	7/32	18 in.	50	Hermetically Sealed Can
255077315	7/32	18 in.	50	Hermetically Sealed Can
255071417	1/4	18 in.	50	Hermetically Sealed Can
255071425	1/4	18 in.	50	Hermetically Sealed Can

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Typical Mechanical Properties

Stress Relieved 1 hr @ 1275°F (690°C)	
Yield Strength	85 ksi (587 MPa)
Tensile Strength	102 ksi (704 MPa)
Elongation % in 2"	23 %
Stress Relieved 8 hrs @ 1275°F (690°C)	
Yield Strength	82 ksi (566 MPa)
Tensile Strength	97 ksi (669 MPa)
Elongation % in 2"	26 %
Stress Relieved 20 hrs @ 1275°F (690°C)	
Yield Strength	85 ksi (587 MPa)
Tensile Strength	100 ksi (690 MPa)
Elongation % in 2"	22 %

Typical Undiluted Weld Metal Analysis

C	0.07 %
Mn	0.7 %
Si	0.4 %
P	0.011 %
S	0.008 %
Cr	2.2 %
Mo	1.1 %
X-Factor	< 15