



7018 AC

AWS E7018 H8

ORIGINAL

120-C, INDEX: 990301

DESCRIPTION:

McKay 7018 AC is a low-hydrogen electrode that is designed for welding low, medium, or high-carbon steels. It can also be used to weld high-strength low-alloy steels and is highly recommended for applications using small 208/230 V, single-phase AC welders. McKay 7018 AC has a smooth, stable arc and offers outstanding restriking capabilities. Even though it is designed for AC operation, this versatile filler metal also works exceptionally well with DC utility-type welders.

APPLICATIONS:

Excellent for skip or tack welds, as well as for welding associated with home and farm projects, automobiles, forestry, mining and steel structures.

Features	Benefits
• Very stable arc • Excellent restriking characteristics	• Easy to control; minimal spatter; smooth and quiet • Reduces frustration caused by electrode sticking; ideal for beginning welders and hobbyists, job shops and farms; great for tack or skip welds
• Good wetting action • Self-removing slag • Reliable starts and restarts • Flat bead contour	• Prevents cold laps or undercutting • Allows more arc time; reduces clean-up time • Provides better welds due to no porosity • Results in excellent weld bead appearance

TYPICAL WELD METAL PROPERTIES* (CHEM PAD):

Weld Metal Analysis

AWS Spec

Carbon (C)	0.90	Not required
Manganese (Mn)	0.88	1.60 max
Silicon (Si)	0.37	0.75 max
Nickel (Ni)	0.019	0.30 max
Chromium (Cr)	0.043	0.20 max
Vanadium (V)	0.012	0.08 max
Molybdenum (Mo)	0.009	0.30 max

TYPICAL MECHANICAL PROPERTIES*(AS WELDED):

AWS Spec

Tensile Strength	81,200 psi (560 MPa)	70,000 psi
Yield Strength	73,100 psi (504 MPa)	58,000 psi
Elongation % in 2"	29.5%	22%
Reduction of Area	75%	not required

TYPICAL CHARPY V-NOTCH IMPACT VALUES* (AS WELDED):

Avg. at -20°F (-29°C)	57 ft•lbf (77 J)	20 ft•lbf
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CONFORMANCES AND APPROVALS:

- AWS Spec A5.1
- ASME SFA5.1 E7018

*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and McKay expressly disclaims any liability incurred from any reliance thereon. Typical data are obtained when welded and tested in accordance with AWS A5.1 specification. Other tests and procedures may produce different results. No data is to be construed as a recommendation for any welding condition or technique not controlled by McKay.



7018 AC

RECOMMENDED WELDING PROCEDURES:

GENERAL:	AC; electrode positive, work negative (DCEP); or electrode negative, work positive (DCEN)
ARC LENGTH:	Very short (less than 1/2 the diameter of the electrode)
FLAT:	Angle electrode 10-15°F from 90°
VERTICAL-UP:	Use weaving technique
VERTICAL DOWN:	Not recommended
OVERHEAD:	Use slight weaving motion within puddle
STORAGE:	Oven controlled at 250°F to 300°F to ensure a low hydrogen weld deposit
RECONDITIONING:	If electrode has been exposed to the atmosphere for an extended period of time, place in 250°F oven and slowly increase temperature to 600°F; bake at 600°F for 1 hour

RECOMMENDED OPERATING PARAMETERS:

Diameter		Type of Power	Minimum Amps	Optimum* Amps	Maximum Amps
Inches	mm				
3/32	2.4	AC, DCEP or DCEN	70	90	110
1/8	3.2	AC, DCEP or DCEN	90	130	160
5/32	4.0	AC, DCEP or DCEN	125	170	220

*For out of position welding, reduce amperages shown by 15%.

TYPICAL DEPOSITION DATA (AT OPTIMUM):

Diameter		Type of Power	Amps	Volts	Deposition Rate Lbs/hr	Deposition Efficiency*%
Inches	mm					
3/32	2.4	AC	90	22.0	2.03	62.0
1/8	3.2	AC	130	25.0	2.58	65.0
5/32	4.0	AC	170	27.0	3.19	65.0

*Allowance made for 2" stub loss included.

AVAILABLE DIAMETERS AND PACKAGES:

Diameter		Length		5-lb. Plastic Pak	50-lb. Can
Inches	mm	Inches	mm		
3/32	2.4	14	355	S429832-045	S429832-035
1/8	3.2	14	355	S429844-045	S429844-035
5/32	4.0	14	355	S429851-045	S429851-035

Material Safety Data Sheets on any McKay product may be obtained from McKay Customer Service.

Because McKay is constantly improving products, McKay reserves the right to change design and/or specifications without notice.