



7018 XLM

AWS E7018-1 H4R

REPLACES: 081117

120-A, INDEX: 100201

DESCRIPTION:

McKay's **7018 XLM** (Extra Low Moisture) is a high deposition rate iron powder electrode designed for AC or DC reverse polarity operation in all positions. It provides excellent operator appeal with a quiet arc, minimal spatter and good restrike capabilities. McKay 7018 XLM also offers good slag removal and an easily controlled weld puddle that allows outstanding ease when welding in either the vertical or overhead position.

APPLICATIONS:

Excellent for out-of-position tacking as well as for welding low alloy structurals, steel structures and field erections, and offshore rigs and power plants.

FEATURES	BENEFITS
<ul style="list-style-type: none"> • Excellent starts and restarts • Extra low moisture • Stable arc • Low spatter 	<ul style="list-style-type: none"> • Great for tacking, increases productivity • Prevents starting porosity • Easy to control, operates well in all positions • Easy clean-up

TYPICAL WELD METAL PROPERTIES* (CHEM PAD):

WELD METAL ANALYSIS		AWS Spec (max)
Carbon (C)	0.03	0.15
Manganese (Mn)	0.95	1.60
Phosphorus (P)	0.009	0.035
Sulphur (S)	0.005	0.035
Silicon (Si)	0.43	0.75
Chromium (Cr)	0.04	0.20
Vanadium (V)	0.01	0.08
Nickel (Ni)	0.06	0.30
Molybdenum (Mo)	0.01	0.03
Mn + Ni + Cr + Mo + V	1.07	1.75

TYPICAL MECHANICAL PROPERTIES*(AS WELDED):

		AWS Spec
Tensile Strength	78,000 psi (538 MPa)	70,000 psi
Yield Strength	68,000 psi (469 MPa)	58,000 psi
Elongation % in 2"	31%	22%
Reduction of Area	77%	Not required

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

Avg. at -50°F (-46°C)	110 ft•lbf (149 J)	20 ft•lbf
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		AWS Spec
TYPICAL DIFFUSABLE HYDROGEN:	2.7ml/100gr	4.0ml/100gr

*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.



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CONFORMANCES AND APPROVALS:

- AWS Spec A5.1, Class E7018-1 H4R • ASME SF A5.1, E7018-1 H4R • ABS

RECOMMENDED WELDING PROCEDURES:

- GENERAL:** Electrode positive, work negative (DCEP) or AC
- ARC LENGTH:** Very short (less than 1/2 the diameter of the electrode)
- FLAT:** Angle electrode 10-15°F from 90°F
- 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 one hour

RECOMMENDED OPERATING PARAMETERS:

DIAMETER		TYPE OF POWER	MINIMUM AMPS	OPTIMUM* AMPS	MAXIMUM AMPS
INCHES	MM				
3/32	2.4	DCEP or AC	70	90	110
1/8	3.2	DCEP or AC	90	130	160
5/32	4.0	DCEP or AC	110	170	230
3/16	4.8	DCEP or AC	190	250	300
7/32	5.6	DCEP or AC	240	290	340
1/4	6.4	DCEP or AC	310	350	390

*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	DCEP	90	22.0	1.80	62.7
1/8	3.2	DCEP	130	26.5	2.60	73.1
5/32	4.0	DCEP	170	28.0	3.90	62.5
3/16	4.8	DCEP	250	28.5	5.20	69.2
7/32	5.6	DCEP	290	30.0	7.30	69.7
1/4	6.4	DCEP	350	32.0	8.00	70.6

*Allowance made for 2" stub loss included.

AVAILABLE DIAMETERS AND PACKAGES:

DIAMETER		LENGTH		10-LB. CAN	50-LB CAN	50-LB CARTON
INCHES	MM	INCHES	MM			
3/32	2.4	14	355	S422032-033	S422032-035	S422032-031
1/8	3.2	14	355	S422044-033	S422044-035	S422044-031
5/32	4.0	14	355	S422051-033	S422051-035	S422051-031
3/16	4.8	14	355	S422058-033	S422058-035	S422058-031
7/32	5.6	18	457	—	S422070-035	--
1/4	6.4	18	457	—	S422081-035	--

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.