



10018-M XLM

AWS E10018-M H4R

Replaces: 050720

140-L, INDEX: 060116

DESCRIPTION:

McKay 10018-M XLM is designed for welding low alloy, high-strength steels with tensile strengths of at least 100,000 psi. This electrode has high operator appeal due to its good arc characteristics, easy slag removal, and low spatter and smoke. McKay 10018-M XLM is ideal for conditions of high heat and humidity because of its moisture-resistant coating which helps to prevent hydrogen cracking and starting porosity.

Note: Actual certs are supplied with every shipment (one per master carton or pallet) at no charge.

APPLICATIONS:

Used for welding reinforcing steel as well as for HY-80, HY-90, T-1, AR and other high-tensile steels.

Features	Benefits
<ul style="list-style-type: none"> • Good arc characteristics • Good ductility • Low spatter level • Quick and easy slag removal • Low moisture reabsorption • Low smoke level 	<ul style="list-style-type: none"> • Stable, easy to control arc • High impact resistance • Improves weld bead appearance • Reduces clean-up time • Prevents starting porosity • Welder safety and comfort

TYPICAL WELD METAL PROPERTIES* (CHEM PAD):

Weld Metal Analysis		AWS Spec
Carbon (C)	0.06	0.10
Manganese (Mn)	1.25	0.75-1.70
Phosphorus (P)	0.015	0.03 max
Sulphur (S)	0.01	0.03 max
Silicon (Si)	0.40	0.60
Chromium (Cr)	0.10	0.35
Nickel (Ni)	1.55	1.40-2.10
Molybdenum (Mo)	0.30	0.25-0.50

TYPICAL MECHANICAL PROPERTIES*(AS WELDED):

		AWS Spec
Tensile Strength	104,000 psi (718 MPa)	100,000 psi, min
Yield Strength	95,000 psi (656 MPa)	88,000 psi, min
Elongation % in 2"	24%	20% min

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

		AWS Spec
Avg. at -60°F (-51°C)	56 ft•lbf (52 J)	20 ft•lbf

CONFORMANCES AND APPROVALS:

- AWS Spec A5.5, Class E10018-M H4R • ASME SFA 5.5, F-4, A-12

*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 A5.5 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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RECOMMENDED WELDING PROCEDURES:

- GENERAL:** DCEP (electrode positive, work negative) or AC
- ARC LENGTH:** Very short (less than half the diameter of the electrode)
- FLAT:** Angle electrode 10-15° from 90°
- VERTICAL-UP:** Use weaving technique
- VERTICAL DOWN:** Not recommended
- OVERHEAD:** Use slight whipping motion within the puddle
- STORAGE:** After opening, store in holding oven (250°F to 300°F) until used to ensure 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 (1) hour.

RECOMMENDED OPERATING PARAMETERS:

Inches	Diameter		Type of Power	Minimum Amps	Optimum* Amps	Maximum Amps
	Inches	mm				
3/32	3/32	2.4	DCEP or AC	70	100	110
1/8	1/8	3.2	DCEP or AC	90	135	160
5/32	5/32	4.0	DCEP or AC	130	170	220
3/16	3/16	4.8	DCEP or AC	200	250	300

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

TYPICAL DEPOSITION DATA (AT OPTIMUM):

Inches	Diameter		Type of Power	Amps	Deposition Rate
	Inches	mm			
3/32	3/32	2.4	DCEP	100	2.00
1/8	1/8	3.2	DCEP	135	2.50
5/32	5/32	4.0	DCEP	170	3.90
3/16	3/16	4.8	DCEP	250	5.10

AVAILABLE DIAMETERS AND PACKAGES:

Inches	Diameter		Length		10-lb. Can	50-lb. Can
	Inches	mm	Inches	mm		
3/32	3/32	2.4	14	355	—	S125832-Z35
1/8	1/8	3.2	14	355	S125844-Z33	S125844-Z35
5/32	5/32	4.0	14	355	—	S125851-Z35

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.