LINCOLN® 7018 AC

Mild Steel, Low Hydrogen ▪ AWS E7018 H8

KEY FEATURES

- AC polarity welding
- Low open circuit voltage operation
- Minimal spatter
- Capable of cold re-strikes

TYPICAL APPLICATIONS

- General fabrication
- Tack and skip welds
- Thin sections

CONFORMANCES

AWS A5.1/A5.1M:	E7018 H8
ASME SFA-A5.1:	E7018 H8
CWB/CSA W48-06:	E4918-H8

WELDING POSITIONS

All, except vertical down

DIAMETERS / PACKAGING

Diameter in (mm)	Length in (mm)	1 lb (0.5 kg) Plastic Tube 6 lb (2.7 kg) Master Carton	5 lb (2.3 kg) Plastic Tube 20 lb (9.1 kg) Master Carton*	50 lb (22.7 kg) Easy Open Can
3/32 (2.4)	14 (350)	ED031714, ED033512*	ED033514	ED031732
1/8 (3.2)	14 (350)	ED031715, ED033513*	ED033515	ED031734
5/32 (4.0)	14 (350)		ED033516	ED031738

** NOTE: Retail Small Packaging (RSP). All RSP products carry AWS compliance. Unlike the standard products, RSP products have no other agencies approvals.*

MECHANICAL PROPERTIES[1] – *As Required per AWS A5.1/A5.1M*

	Yield Strength[2] MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %	Charpy V-Notch J (ft▪lbf) @ -29°C (-20°F)
Requirements - AWS E7018 H8	400 (58) min	490 (70) min	22 min	27 (20) min
Typical Results[3] - As-Welded	435-625 (63-80)	515-685 (75-90)	23-29	27-76 (20-56)

DEPOSIT COMPOSITION[1] – *As Required per AWS A5.1/A5.1M*

	%C	%Mn	%Si	%P	%S	%Ni
Requirements - AWS E7018 H8	0.15 max	1.60 max	0.75 max	0.035 max	0.035 max	0.30 max
Typical Results[3]	0.04-0.07	1.00-1.60	0.32-0.63	0.01-0.02	≤ 0.01	0.01-0.03
	%Cr	**%Mo**	**%V**	**%Mn + Ni + Cr + Mo + V**	**Diffusible Hydrogen (mL/100g weld metal)**	
Requirements - AWS E7018 H8	0.20 max	0.30 max	0.08 max	1.75 max	8.0 max	
Typical Results[3]	0.03-0.08	≤ 0.01	0.02-0.05	1.00-1.40	2-4	

TYPICAL OPERATING PROCEDURES

	Current (Amps)		
Polarity[4]	**3/32 in (2.4 mm)**	**1/8 in (3.2 mm)**	**5/32 in (4.0 mm)**
AC	75-120	105-150	130-200
DC+	70-115	100-140	120-185

[1]Typical all weld metal. [2]Measured with 0.2% offset. [3]See test results disclaimer [4]Preferred polarity is listed first.

Material Safety Data Sheets (MSDS) and Certificates of Conformance are available on our website at www.lincolnelectric.com

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application.

CUSTOMER ASSISTANCE POLICY

The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

Lincoln Electric is a responsive manufacturer, but the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.com for any updated information.

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