

# LINCORE® M

Severe Impact

## KEY FEATURES

- Deposit resists severe impact as well as moderate abrasion
- Produces an austenitic manganese deposit that work-hardens
- Recommended for build-up and repair of Hadfield-type austenitic manganese materials as well as carbon and low alloy steels
- Unlimited layers with proper preheat and interpass temperatures and procedures

## TYPICAL APPLICATIONS

- Hammers
- Dredge parts
- Crushers
- Breaker bars
- Buckets

## WELDING PROCESSES

Flat

## DIAMETERS / PACKAGING

Diameter in (mm)	25 lb (11.3 kg) Steel Spool	50 lb (22.7 kg) Coil	125 lb (56.7 kg) Speed-Feed® Drum	600 lb (272 kg) Speed-Feed® Drum
0.045 (1.1)	ED031128			
1/16 (1.6)	ED031129			
5/64 (2.0)	ED031130	ED011160		
7/64 (2.8)		ED011164	ED011163	ED011162

## MECHANICAL PROPERTIES<sup>(1)</sup>

As-Welded	Rockwell Hardness (R <sub>c</sub> )	
	Work Hardened	
18 - 28	30 - 48	

## DEPOSIT COMPOSITION<sup>(1)</sup>

	%C	%Mn	%Si	%Cr	%Ni
Open Arc	0.60	13.0	0.4	4.9	0.5

## TYPICAL OPERATING PROCEDURES

Diameter, Polarity ESO - in (mm)	Wire Feed Speed m/min (in/min)	Voltage (Volts)	Approx. Current (Amps)	Deposition Rate kg/hr (lb/hr)
<b>0.045 in (1.1 mm), DC+</b> 1 (25)	5.1 (200)	22	80	1.5 (3.3)
	8.9 (350)	24	145	2.7 (6.0)
	12.7 (500)	26	185	4.4 (9.6)
<b>1/16 in (1.6 mm), DC+</b> 1 1/8 (30)	3.8 (150)	23	130	2.2 (4.9)
	6.4 (250)	25	200	3.9 (8.6)
	8.9 (350)	27	250	5.6 (12.4)
<b>5/64 in (2.0 mm), DC+</b> 1 1/4 (32)	3.2 (125)	24	240	2.9 (6.4)
	4.4 (175)	27	300	4.2 (9.3)
	6.4 (250)	29	360	6.2 (13.6)
<b>7/64 in (2.8 mm), DC+</b> 1 3/4 (45)	1.9 (75)	25	240	3.5 (7.8)
	3.2 (125)	27	360	6.2 (13.6)
	3.8 (150)	28	395	7.5 (16.6)
<b>7/64 in (2.8 mm), DC+</b> 2 1/2 (64)	1.9 (75)	25	240	3.6 (8.0)
	4.4 (175)	30	400	8.8 (19.5)
	5.7 (225)	32	455	11.6 (25.6)

<sup>(1)</sup> Composition and properties depend upon dilution. Single layer deposit properties depend upon base metal and/or build-up material.

NOTE: As with all austenitic manganese welding products, interpass temperatures should be limited to 260°C (500°F) maximum. A stringer bead, or at most, a slight weave is recommended to limit heat build-up. Excessive heat build-up causes manganese carbide precipitation which damages the toughness of austenitic manganese.

*Safety Data Sheets (SDS) and Certificates of Conformance are available on our website at [www.lincolnelectric.com](http://www.lincolnelectric.com)*

FUMES AND GASES can be hazardous to your health.

- Fumes from the normal use of this product contain significant quantities of potentially hazardous compounds. See consumable product label/insert.
- Keep your head out of the fumes.
- Use enough ventilation and local exhaust to keep fumes and gases from your breathing zone and the general area.
- An approved respirator should be used unless exposure assessments are below applicable exposure limits.

#### 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.

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