

# Lincore® M

## TOP FEATURES

- 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
- Deposit resists severe impact as well as moderate abrasion

## TYPICAL APPLICATIONS

- Bar, Bucket, Crush, Cut, Drag, Dredge
- Hammer, Mill, Mix, Open Hearth, Plate
- Power Generation, Pump, Rail, Roll
- Screen, Shovel, Teeth, Wheel

## CLASSIFICATION

EN ISO T Fe9

## CURRENT TYPE

DC+

## WELDING POSITIONS

Flat/Horizontal

## CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, ALL WELD METAL

C	Mn	Si	Cr	Ni
0.6	13.0	0.4	4.9	0.5

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Condition	Typical hardness values
As deposited	18-28 HRc
Work hardened	30-48 HRc

## PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.1	SPOOL	11.3	ED031128
1.6	SPOOL	11.3	ED031129
2.0	SPOOL	11.3	ED031130
	COIL	22.7	ED011160
	COIL	22.7	ED011164
2.8	DRUM	56.0	ED011163
	DRUM	272.0	ED011162

## ADDITIONAL INFORMATION

- All work-hardened base material and previously deposited material should be removed prior to applying a new deposit, since such areas are prone to embrittlement and possible cracking.
- No preheat is required on austenitic manganese steels although a preheat of between 150-200°C may be necessary on carbon and low steels to prevent heat affected zone cracking.
- Narrow stringer beads are preferred to avoid excessive heat build up in the base material. High heat input welds and interpass temperatures above 260°C causes manganese carbide precipitation resulting in embrittlement.
- There is no definite limitation to the number of passes that may be deposited, however, it is good practise to peen each pass immediately after welding to minimise internal stresses and possible distortion and cracking.
- Lincore M deposits work harden rapidly making them difficult to machine. For best results carbide or ceramic cutting tools and rigid tooling should be used. Grinding can also be successfully employed.

## 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

Safety Data Sheets (SDS) are available here:



Subject to Change – The information is accurate to the best of our knowledge at the time of printing.  
Please refer to [www.lincolnelectric.eu](http://www.lincolnelectric.eu) for any updated information.