

Hardfacing cored wire

Classification

DIN 8555 : MF6-GF-45-KP

General description

**Lincore M is a selfshielded, open arc, flux cored tubular electrode
Deposition of austenitic manganese steel with 14% manganese**

Application

Lincore M is designed for rebuilding and hardfacing of manganese steel, carbon steel and low alloy steel parts. Typical APLs include: Rail crossovers, frogs and switchpoints

Typical applications include:

Rail crossovers, frogs and switches	Manganese bucket fronts
Dipper teeth and lips	Crusher rolls
Crusher hammers	Dragline pins and links
Crushers screens and grizzlies	Rolling mill parts
Chain hooks	Drive sprockets
Dredge parts, pump shells	Shovel tracks
Parts for safes and vaults	

Mechanical properties, typical, all weld metal

	Typical hardness values
As deposited	18-28 Rc
Work Hardened	30-48 Rc

Packaging and available sizes

Unit type	Diameter (mm)
	2.0
10 kg coil 22RR	X

Lincore® M: rev. EN 21

Liability: All information in this data sheet is based on the best available knowledge, is subject to change without notice and can only be considered as suitable for general guidance **Fumes:** Consult information on Welding Safety Sheet, available upon request

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.

First layers on mild and low alloy steel can be welded with RepTec 126, Lincore M can be used to complete the build up.

Welding positions



ISO/ASME PA/1G

Current type

DC +

Chemical composition (w%), typical, all weld metal

C	Mn	Si	Cr	Ni
0.6	13.0	0.4	4.9	0.5

Structure

Martensitic + ferritic

Calculation Data

Diameter (mm)	Wire Feed Speed (m/min)	Current (A)	Arc Voltage (volts)	Deposition Rate (kg/h)
2.0	3.2 to 6.4	240 - 360	24 - 29	2.9 - 6.2

Complementary products

Complementary products include Wearshield[®] Mangjet (e)