

<b>Technical data sheet</b>  <small>011121MBA</small>	<b>Cored welding wire</b>  <b>HARDFACE NM-G</b>	 <b>Welding Alloys</b>
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### CLASSIFICATION

EN 14700: T Fe9

### DESCRIPTION

- Cored wire for gas shielded metal arc hardfacing
- Austenitic manganese steel type alloy used for build up and reinforcing manganese steel castings and wear components
- Excellent work hardening properties. The degree of work hardening is dependent on the amount of impact on the rebuilt component

### APPLICATIONS

HARDFACE NM-G deposits a "Hadfield" manganese steel type alloy. It is designed for rebuilding 14% manganese steel parts.

Austenitic manganese steels must be kept cool during welding. Do not preheat. Use intermittent or staggered weld runs and ensure interpass temperature is kept as low as possible. Deposit can be multi-layered.

### Examples

Reclaiming crusher jaws and rolls, gyratory mantles, blow bars, swing hammers, manganese dredge components such as buckets and tumblers, railroad sections, bucket teeth and lips, dragline manganese steel shackles and repair of defects in manganese steel castings

### TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni
0.80	14.0	0.50	2.50	0.50

Structure: austenite

### TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Hardness – 3-layer deposit:

As welded: 190 HB

Work hardened: 46 HRc

### CONDITIONS OF USE

Current type	Shielding gas	
DC+	EN ISO 14175	M12: Ar + 0.5 to 5% CO <sub>2</sub>
		M13: Ar + 0.5 to 3% O <sub>2</sub>
		M21: Ar + 15 to 25% CO <sub>2</sub>

Gas flow rate: 15 to 20 l/min

### OPERATING CONDITIONS

Diameter [mm]	Current [A]		Voltage [V]		Stick-out [mm]	
	Range	Optimum	Range	Optimum	Range	Optimum
1.2	100 – 300	220	16 – 32	28	12 – 25	15
1.6	150 – 300	250	16 – 32	29	12 – 25	20
2.0	200 – 400	300	16 – 32	29	12 – 30	25
2.4	250 – 450	350	16 – 32	29	12 – 30	25

Recovery: 95 %

### WELDING POSITIONS

HARDFACE NM-G, up to Ø 1.6 mm, is suitable as well for downhand as for positional welding by adapting transfer mode and welding parameters as for solid wires.

### PACKAGING

Diameter	≤ 2.4 mm	≥ 2.4 mm	
Standard packaging	EN ISO 544: BS 300 spool	B 450 coil	Drum
Weight	15 kg	25 kg	Up to 330 kg

Other packaging and other diameters: please consult us

Welding products and techniques evolve constantly. All descriptions, illustrations and properties given in this data sheet are subject to change without notice and can only be considered as suitable for general guidance. This document is intended to help the user make the correct choice of product. It is his responsibility to assess its suitability for his intended application.