FC-14MN

SELF GAS SHIELDING FLUX AND METAL CORED WIRE DEPOSITING AN AUSTENITIC 14Mn ALLOY WITH EXCELLENT WORK HARDENING CHARACTERISTICS

DATA SHEET NO. 157

SPECIFICATION	DIN 8555
CLASSIFICATION	MF7-200-GP
PRODUCT DESCRIPTION	A tight seamed roll-drawn tubular wire containing an evenly distributed mixture of alloying elements, deoxidants and chemically basic minerals. The minerals dissociate during welding to provide a full protective self-shielding gas which eliminates the need for an external separate shielding gas.
WELDING FEATURES OF THE ELECTRODE	Suitable for use on DC+ only, the strong forcefull arc is readily controllable and the high silicon content of the alloy lowers the surface tension of the molten weld pool, thus allowing ease of weaving and thus minimal dilution. Weld beads are bright and smooth and free from porosity. The slag volume is minimal and metal recovery is about 90% with respect to weight of the consumable.
APPLICATIONS AND MATERIALS TO BE WELDED	This multi purpose alloy may be used to weld 14% manganese austenitic steels or to build up worn areas on such steels or to surface C-Mn steels with a 14% Mn deposit. The weld metal as deposited is soft and ductile but work hardens rapidly under impact loading or frictional pressure to provide a deposit resistant to wear by friction or abrasion. Ideal for railtracks, crossings, crusher rolls, bucket teeth and similar.

WELD METAL ANALYSIS COMPOSITION % BY Wt.

	C	Mn	Si	S	P	Cr	Ni	Fe
MIN.	0.5	11	-	-	-	2.5	0.5	
MAX.	1.0	16	1.5	0.025	0.05	5.0	2.5	
TYPICAL	0.8	13	0.3	0.01	0.025	4.0	2.0	Bal.

WELD METAL HARDNESS (ALL WELD METAL)

	As welded		Work Hardened	
	HRC	HV	HRC	HV
3 LAYERS ON C-Mn STEEL	14 - 20	210 - 240	30 - 48	300 - 480
1 LAYER ON 14Mn STEEL	14 - 20	210 - 240	30 - 48	300 - 480

WELDING AMPERAGE DC+

Ø (mm)	2.4	2.8	3.2
MIN	200	250	300
MAX	300	350	400

WEIGHT (KG) / PACK	15 – 25 – 100 – 250
OTHER DATA	Wires that have become damp should be re-dried at 120°C for 1 hour.
RELATED PRODUCTS	Please contact our Technical Department for details.