FC-25

SELF GAS SHIELDING FLUX AND METAL FILLED CORED WIRE FOR REBUILDING AND WEAR SURFACING APPLICATIONS INVOLVING LIGHT INTERMETALLIC ABRASION

DATA SHEET NO. 158

SPECIFICATION	DIN 8555
CLASSIFICATION	MF1-200-G
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	May be used as a hardfacing alloy in its own right when maximum resistance when metal to metal wear is involved which needs to be combined with alloy machinability. However, its main use is as a buffer build-up or cushion layer on heavily worn components prior to depositing much harder alloys. The alloy may also be used for the repair of casting defects on C Mn steel castings.

WELD METAL ANALYSIS COMPOSITION % BY Wt.

	C	Mn	Si	S	P	Cr	Ni	Fe
MIN	0.10	-	-	-	-	-	-	
MAX	0.30	1.5	0.8	0.03	0.03	0.5	0.5	
TYPICAL	0.15	1.4	0.3	0.005	0.01	0.05	0.02	Bal.

WELD METAL HARDNESS (ALL WELD METAL)

AS WELDED 150° INTERPASS/PRE-HEAT ON C-Mn STEEL		STRESS RELIEVED AT 600°/FUR.COOLED ON C-Mn STEEL		
1ST LAYER	HRC 18	1ST LAYER	HRC 15	MAY BE CASE HARDENED
2ND LAYER	HRC 20	2ND LAYER	HRC 18	
3RD LAYER	HRC 22	3RD LAYER	HRC 20	

WELDING AMPERAGE DC+

Ø (mm)	2.4	2.8	3.2
MIN	180	250	300
MAX	300	350	400

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.