



**MANUFACTURERS OF A DIVERSE RANGE
OF ADVANCED WELDING CONSUMABLES**

**SECTION
11**

WI-0304 DS160 FC-34, Rev. 1, Date 01.05.2009

FC-34	SELF GAS SHIELDING FLUX AND METAL FILLED CORED WIRE FOR HARD FACING APPLICATIONS INVOLVING ABRASION AND IMPACT				DATA SHEET NO. 160					
	SPECIFICATION		DIN 8555							
CLASSIFICATION		MF1-350-G								
PRODUCT DESCRIPTION		A self-shielded flux cored wire for heavy build-up and as a basis for harder finishing layer. The deposit contains small percentages of carbon, chromium, silicon, and manganese, which results a crack-free wear resistance deposit with a hardness about 34 HRC, dependent upon parent material dilutions and number of layer. It is particularly suitable for conditions of moderate abrasion and friction, coupled with resistance to heavy impact.								
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		Designed for repairing or rebuilding of ferritic and austenitic steel. Typical applications include railroad frogs, crusher rollers and hammers, dipper gums, track pads. Also for buffer layers before hard surfacing with chromium carbide alloys.								
WELD METAL ANALYSIS COMPOSITION % BY Wt.			C	Mn	Si	S	P	Ni	Cr	Fe
		MIN.	0.2	1.0	-	-	-	-	0.8	
		MAX.	0.4	1.6	1.0	0.03	0.02	-	1.4	
		TYPICAL	0.3	1.5	0.8	0.02	0.01	0.03	1.2	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			MAY BE CASE HARDENED		
		1 ST LAYER	HRC 25		1 ST LAYER	HRC 20				
		2 ND LAYER	HRC 28		2 ND LAYER	HRC 23				
		3 RD LAYER	HRC 32		3 RD LAYER	HRC 26				
WELDING AMPERAGE DC+		Ø (mm)	2.4	2.8	3.2					
		MIN	250	300	350					
		MAX	350	400	450					
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.								