MIG 18/8MN

Classification

AWS A5.9 : ~ER307 ISO 14343-A : G 18 8 Mn

Description & Applications

Solid wire for GMAW of austenitic steels alloyed with high Manganese. Non magnetic weld deposit, highly resistant to cracks and self hardenable. Specially designed to homogenous and heterogenous welding of Mn-Steels like Hadlfield steels (13% Mn) and difficult to weld materials. Also used for cushion layers prior hardfacing, for repairing of pieces submitted to shocks or wear.

Main applications: Civil engineering, railways repairs, cimenteries, mines...

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Ni	Mo	Cu	Nb	P	S	Co
Min			5.0	17.0	7.0			-			-
Max	0.20	1.2	8.0	20.0	10.0	0.5	0.5	-	0.03	0.03	-
Type	0.09	0.90	7.0	19.0	8.5	0.10	0.05	0.01	0.02	0.01	0.05

All Weld Metal Mechanical Properties

	$R_{p0.2}$ (MPa)	R_m (MPa)	A_5 (%)	KV (J)	
Min	350	500	25	-	-
Max				-	-
Type	450	650	40	+20°C	120

Hardness: ~250HB as welded / 400-500HB work hardened

Welding Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters		Shielding Gas
		Current (A)	Voltage (V)	
GMAW = +	0.8 1.0 1.2 1.6	70 - 180 80 - 220 150 - 320 220 - 380	18 - 26 18 - 28 22 - 32 24 - 34	ISO 14175: M12 (Ar+0.5-5%CO_2) M13 (Ar+0.5-3%O_2) 15-20 l/min