



TIG 18/8MN

Old reference: TIG 307Si

Classification

AWS A5.9 : ~ER307

ISO 14343-A : W 18 8 Mn

Description & Applications

Solid rod for GTAW 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 Hadfield 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	550	25	-
Max				-
Type	450	650	40	+20°C 120

Welding Current & Instructions

Welding mode	Shielding Gas
TIG = -	ISO 14175 : I1 (Ar) 6-12 l/min Back shielding: I1 (Ar) / N1 (Nitrogen) : 3-6 l/min

FT En-TN01-200406