TIG F77

Old reference: TIG 100S-1

Classification

AWS A5.28 : ER100S-1 ISO 16834-A : W 62 5 I1 Mn3Ni1,5Mo

Description & Applications

Copper coated solid rod, low alloyed with Nickel and Molybdenum for GTAW of high strength steels (Rm > 700MPa). Good impact strength at low temperatures down to -50°C.

Main applications: Chemical and petrochemical industry, offshore fabrication, industrial machinery construction, cranes…

Base materials:

High strength steels :

EN	*ASTM*
S460	A 514
S500	A 517
S550	HY100
S620	HY80
S690	HY90
L480	API 5AL80
L550	API 5LX65, 70, 80

Typical Weld Metal Composition (%)

	C	Si	Mn	Cr	Ni	Mo	Cu	Al	Ti	Zr	V	P	S
Min		0.20	1.30		1.40	0.25							
Max	0.08	0.55	1.80	0.15	2.10	0.55	0.25	0.10	0.10	0.10	0.03	0.010	0.010
Type	0.07	0.50	1.5	0.05	1.6	0.45	0.12	0.003	0.002	0.001	0.003	0.01	0.01

All Weld Metal Mechanical Properties

	R_e (MPa)	R_m (MPa)	A_5 (%)	KV (J)	
Min	620	700	18	-50°C	68
Max		890			
Type	670	830	19	-50°C	90

Weld 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

Preheating and interpass temperature: 135-165°C.