



# TIG F68

Old reference: TIG 90SB3

## Classification

AWS A5.28 : ER90S-B3

ISO 21952-B : W 2C1M

## Description & Applications

Copper coated solid rod for GTAW of creep resistant steels alloyed with Chromium and Molybdenum (2.25% Cr - 1% Mo) applied at service temperature up to 600°C.

**Main applications:** Petrochemical industry, chemical industry.

**Base material:**

**Creep resisting steels:**

EN	ASTM
10CrMo 9-10	A 182 gr F22
12CrMo 9-10	A 199 gr T21, T22
G-17CrMo 9-10	A 200 gr T21, T22
	A 213 gr T22
	A 217 gr WC9
	A 234 gr WP22
	A 335 gr P22
	A 387 gr 21, 22

## Typical Chemical Composition ( % )

	C	Si	Mn	Cr	Ni	Mo	Cu	V	P	S
Min	0.07	0.40	0.40	2.30		0.90				
Max	0.12	0.70	0.70	2.70	0.20	1.20	0.35	0.03	0.025	0.025
Type	0.10	0.50	0.60	2.4	0.03	1.0	0.20	0.01	0.01	0.01

## All Weld Metal Mechanical Properties\*

	R <sub>e</sub> ( MPa )	R <sub>m</sub> ( MPa )	A <sub>5</sub> ( % )	KV ( J )
Min	470	550	19	+20°C 47
Max				
Type	560	640	21	+20°C 180

\* After PWHT at 700°C/1h

## 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

Preheating and interpasses temperature: 185-215°C

FT En-TF06-190219

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