



TIG F609

Old reference: TIG 80SB8

Classification

AWS A5.28 : ER80S-B8

ISO 21952-A : W CrMo9Si

Description & Applications

GTAW rods for welding creep resisting steels of similar chemical composition used at service temperatures up to 600°C. Deposit resisting to temperature and creep up to 600°C. Highly resistant to hot gas and overheated steam.

Main applications: For power plants, heat exchangers, tubes, steam boilers...

Base materials

	EN	ASTM
1.7386	X12CrMo9-1	A187 Gr F9 ; A336 Gr F9
1.7386	X12CrMo9-1	A335 Gr P9
1.7386	X12CrMo9-1	A199 / A200 / A213 Gr T9
1.7389	GX12CrMo10-1	A217 C12

Steels and pipes for boiler and pressure vessels

Typical Chemical Composition (%)

C	Si	Mn	Cr	Mo	Cu	P	S	Fe
0.07	0.4	0.5	9.0	1.0	0.2	<0.015	<0.015	Rem.

All Weld Metal Mechanical Properties

$R_{p0.2}$ (MPa)	R_m (MPa)	A_5 (%)	KV (J)
530	670	24	+20°C 150
After PWHT 760°C/2h			

Welding Current & Instructions

Welding mode	Shielding Gas
TIG = -	Ar : 6-12 l/min Back shielding : Nitrogen / H ₂ : 3-6 l/min

Pre-heating and interpass temperature: 200-300°C. Post weld heat treatment is advised at 760°C during 2 hours and then cooled slowly (55°C/h) up to 580°C, following by air cooling to room temperature.

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