MIG F609

Old reference: MIG 80SB8

Classification

AWS A5.28 : ER80S-B8 ISO 21952-A : G CrMo9

Description & Applications

Copper coated solid wire for gas (Ar + O_2) metal arc welding of creep resistant steels alloyed Chromium and Molybdenum (9% Cr - 1% Mo) applied at service temperature up to 600°C. Its corrosion resistance is higher than 5% Cr - 0.5% Mo steels requirements.

Main applications: High temperature exchangers, piping, steam boilers, pressure vessels, overheaters...

Base material :

Creep resisting steels :

EN	*ASTM*
X12CrMo 9-1	A 182 gr F9
X7CrMo 9-1	A 199 gr T9
	A 213 gr T9
	A 217 gr C12
	A 234 gr WP9
	A 335 gr 9
	A 387 gr 9

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Ni	Mo	Cu	Nb	V	P	S	O/T
Min	0.06	0.30	0.40	8.5		0.80						
Max	0.10	0.50	0.70	10.0	0.50	1.20	0.3	0.01	0.15	0.025	0.025	0.50
Type	0.07	0.40	0.50	9.0	0.25	1.0	0.12	0.005	0.02	0.01	0.01	<0.50

All Weld Metal Mechanical Properties*

	R_e (MPa)	R_m (MPa)	A_5 (%)	KV (J)	
Min	470	590	18	+20°C	>34
Max					
Type	500	630	23	+20°C	60

* After PWHT at 745°C/1h

Welding Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters		Shielding Gas
		Current (A)	Voltage (V)	
GMAW = +	1.0 1.2 1.6	80 - 260 100 - 360 130 - 450	17 - 32 18 - 34 19 - 38	ISO 14175: M22 (Ar/O_2) 12-15 l/min

Preheating and interpasses temperature: 200-260°C