MIG F692

Classification

AWS A5.28 : ER90S-G ISO 21952-A : G Z CrMoWVNb9 0.5 1.5

Description & Applications

Copper coated solid wire for gas (Ar + CO_2) metal arc welding of creep resistant steels alloyed Chromium, Tungsten and Molybdenum (9% Cr - 1.7% W - 0.5% Mo) like P91 applied at service temperature up to 650°C. Creep resistance improved due to Tungsten (W), Niobium (Nb), Vanandium (V) and Nitrogen (N) addition compared to Chromium – Molybden standard alloys.

Main applications: Chemical and petrochemical industry, oil and gas...

Base materials:

Creep resisting martensitic steels :

EN	*ASTM*
X10CrWMoVNb 9-2	A 182 gr F92
	A 213 gr T92
	A 235 gr P92
	A 387 gr 92

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Ni	Mo	Cu	W	Nb	V	N	P	S	Fe
Min														
Max	Not specified													Rem.
Type	0.10	0.30	0.65	9.0	0.50	0.40	0.10	1.6	0.05	0.15	0.05	0.007	0.002	Rem.

All Weld Metal Mechanical Properties*

	R_e (MPa)	R_m (MPa)	A_5 (%)	KV (J)	
Min		620		-	-
Max					
Type	540	650	18	-	-

Welding Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters		Shielding Gas
		Current (A)	Voltage (V)	
GMAW = +	1.0 1.2	80 - 260 100 - 360	17 - 32 18 - 34	ISO 14175: M21 (Ar/CO_2) 12-15 l/min

Preheating and interpasses temperature: 200-300°C

FT En-MF12-170303

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