MIG M13/4

Old reference: MIG 410NiMo

Classification

ISO 14343-A : G 13 4 AWS A5.9 : ~ER410NiMo

Description & Applications

Solid wire electrode for repair and construction welding of martensitic Cr-Ni steels with a similar composition. These steels/castings are used for hydraulic turbines, pumps, valve bodies, compressor parts...

Base materials:

Martensitic stainless steels and castings:

UNS	Alloy	EN/ Symbol	Material N°
J91540	CA6-NM	G-X5CrNi13-4	1.4313
S41500		X3CrNiMo13-4	1.4313
		G-X4CrNi13-4	1.4317
		G-X5CrNiMo13-4	1.4407
		X3CrNiMo13-4	1.4413
		G-X4CrNiMo13-4	1.4414

Typical Chemical Composition (%)

C	Si	Mn	Cr	Ni	Mo	Cu	P	S	Fe
0.02	0.45	0.7	12.3	4.2	0.5	0.08	<0.02	<0.01	Rem.

All Weld Metal Mechanical Properties

$R_{p0.2}$ (MPa)	R_m (MPa)	A_5 (%)	KV (J)
750	860	17	+20°C 80

After PWHT 580°C/8h

Welding Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters		Shielding Gas
		Pulsed arc (A)	(V)	
MIG = +	1.0 1.2 1.6	120-200 140-220 180-260	24-28 24-28 24-30	EN 439 : M1 Ar + 2%CO_2 18-20 l/min

Preheating at 100-150°C. Maintain temperature during welding and then cool down to room temperature. Annealing is advised at 580°C/8h.

Ind.10.1

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