MIG NI690

Classification

AWS A5.14 : ERNiCrFe-7A ISO 18274 : S Ni6054 (NiCr29Fe9)

Description & Applications

Solid wire for GMAW of Nickel alloys type Alloy 690. Excellent resistance to corrosion and high temperature oxidation. Could be used in cladding for low alloys or stainless steels but also for heterogeneous assembly between steel and nickel.

Main applications: Nuclear industry, chemical and petrochemical industry.

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Mo	Cu	P	S	Fe
Min				28.0					7.0
Max	0.04	0.50	1.0	31.5	0.50	0.30	0.02	0.015	11.0
Type	0.02	0.20	0.40	30.0	0.01	0.01	0.007	0.003	9.0

	Nb+Ta	Al	Ti	Co	Zr	B	Al+Ti	Ni
Min	0.5							51.0
Max	1.0	1.10	1.0	0.12	0.02	0.005	1.5	
Type	0.70	0.50	0.50	0.01	<0.02	<0.005	1.0	>51.0

All Weld Metal Mechanical Properties

	$R_{p0.2}$ (MPa)	R_m (MPa)	A_5 (%)	KV (J)	
Min	-	-	-	-	-
Max					
Type	410	640	37	+20°C	180

Welding Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters		Shielding Gas
		Current (A)	Voltage (V)	
GMAW = +	0.8 1.0 1.2 1.6	70 - 180 80 - 220 150 - 320 220 - 380	18 - 26 18 - 28 22 - 32 24 - 34	ISO 14175: I1 (100% Ar) I3 (Ar+10-30%He) Z (Ar+He+H+CO_2) 15-20 l/min

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