MIG NI718

Classification

AWS A5.14 : ERNiFeCr-2
AMS : 5832
ISO 18274 : S Ni 7718 (NiFe19Cr19Nb5Mo3)
EN 3884

Description & Applications

Solid wire for GMAW of alloys like INCONEL 718, X750 and 706. Excellent resistance against thermal shocks and oxidation. Excellent resistance to metallic abrasion with service temperature up to 700°C.

Main applications: Aerospace, cryogenic tank, Hardfacing of hot working tool.

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Mo	Cu	P	S
Min	0.02			17.00	2.80			
Max	0.08	0.3	0.3	21.00	3.30	0.20	0.015	0.015
Type	0.04	0.10	0.20	19.0	3.0	0.05	0.005	0.002

	Fe	Nb+Ta	Al	Ti	Co	B	Ni
Min		4.8	0.30	0.7		0.0020	50.00
Max	24.0	5.50	0.70	1.1	1.00	0.0060	55.00
Type	Rem.	5.0	0.50	0.90	0.30	0.003	52.0

All Weld Metal Mechanical Properties

	$R_{p0.2}$ (MPa)	R_m (MPa)	A_5 (%)	Hardness	
Min	-	-	-	As welded	After PWHT
Max					
Type	900	1200	8	240 HB	~45 HRC

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