MIG 20/10NBS

Classification

AWS A5.9 : ER347Si ISO 14343-A : G 19 9 Nb Si

Description & Applications

Solid wire with Silicon increased content for GMAW of stainless steels stabilised with Niobium like 347, with Titanium like 321 or low carbon content stainless steels like 304L and controlled Carbon content like 304H. Good intergranular resistant corrosion.

Main applications: Aeronautical industry, petrochemistry, power plant.

Base materials:

Stainless steels for general use and for high temperature applications:

UNS	*Alloy*	*EN 10088*	*Material N°*
S30409	304H	X6CrNi18-11	1.4948
S30400	304	X5CrNi18-10	1.4301
S32100	321	X6CrNiTi18-10	1.4541
		X10CrNiTi18-10	1.6903
		X10CrNi18-8	1.4310
S30403	304L	X2CrNi19-11	1.4306

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Ni	Mo	Cu	Nb	P	S	Co	N
Min		0.65	1.0	19.0	9.0			10 x C			-	-
Max	0.08	1.00	2.5	21.0	11.0	0.5	0.5	1.0	0.03	0.02	-	-
Type	0.04	0.80	1.5	19.5	9.8	0.20	0.10	0.60	0.02	0.01	0.06	0.06

All Weld Metal Mechanical Properties

	$R_{p0.2}$ (MPa)	R_m (MPa)	A_5 (%)	KV (J)	
Min	350	550	25	-	-
Max				-	-
Type	460	630	33	+20°C	110

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: M12 (Ar+0.5-5%CO_2) M13 (Ar+0.5-3%O_2) 15-20 l/min

Back shielding with Argon or Nitrogen gas or with copper backing support to avoid “back end” rust phenomena.

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