TIG 20/10T

Old reference: TIG 321

Classification

AWS A5.9 : ~ER321
DMR 34.276 : X6 CrNiTi18
ISO 14343-A : W Z 19 9 Ti
AMS : 5689

Description & Applications

Solid rod for GTAW of stabilised stainless steels with Titanium like 321 and low carbon content stainless steels like 304, 304L used at high temperature up to 800°C… Good intergranular resistant corrosion.

Main applications: Aeronautical industry.

Base materials:

Stainless steels 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

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Ni	Mo	Cu	Ti	P	S	N
Min		0.40		17.00	8.00			5x(C+N)			
Max	0.08	1.00	2.00	19.00	12.00	0.75	0.75-	0.80	0.040	0.030	0.10
Type	0.02	0.50	1.5	18.0	10.5	0.30	0.30	0.20	0.030	0.010	0.01

All Weld Metal Mechanical Properties

	$R_{p0.2}$ (MPa)	R_m (MPa)	A_5 (%)	KV (J)	
Min	-	-	-	-	-
Max	-	-	-	-	-
Type	460	630	35	+20°C	110

Welding Current & Instructions

Welding mode	Shielding Gas
TIG = -	ISO 14175 : I1 (Ar) 6-12 l/min Back shielding: I1 (Ar) / N1 (Nitrogen) : 3-6 l/min

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

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