TIG D22/09

Old reference: TIG 2209

Classification

AWS A5.9 : ER2209 ISO 14343-A : W 22 9 3 N L

Description & Applications

Low carbon content solid rod for GTAW of Duplex (austenitic-ferritic microstructure) type stainless steels like Ur 35N™ or 45N™*. Resistant in chloride containing media against pitting corrosion as well as crevice and stress corrosion. Used for components which require high strength combined with corrosion attack.

* Trade mark of CREUSOT LOIRE

Main applications: For pumps, vessels, piping systems

Base materials:

Austenitic-ferritic stainless steels

UNS	*Alloy*	*EN 10088*	*Material N°*
S31803		X2CrNiMoN22-5-3	1.4462
S32304	35N	X2CrNi23-4	1.4362
S32900	329	X3CrNiMoN27-5-2	1.4460

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Ni	Mo	Cu	Nb	P	S	Co	N
Min			0.50	21.5	7.5	2.5		-			-	0.10
Max	0.03	0.90	2.00	23.5	9.5	3.5	0.5	-	0.03	0.02	-	0.20
Type	0.012	0.50	1.7	23.0	8.8	3.2	0.10	0.01	0.02	0.01	0.05	0.14

All Weld Metal Mechanical Properties

	$R_{p0.2}$ (MPa)	R_m (MPa)	A_5 (%)	KV (J)	
Min	450	690	20	-	-
Max				-	-
Type	600	780	26	+20°C -50°C	120 100

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.