TIG D25/09

Old reference: TIG 2509

Classification

AWS A5.9 : ER2594 ISO 14343-A : W 25 9 4 N L

Description & Applications

Low carbon content solid rod for GTAW of Duplex and Super Duplex (austenitic-ferritic microstructure) type stainless steels. 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. Could be used with service temperature up to +250°C.

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
S32550	52N	G-X2CrNiMoCuN26-6-3	1.4517
	52N+	X2CrNiMoCuN25-6-3	1.4507
S32750	2507	X2CrNiMoN25-7-4	1.4410
S32760	100	X2CrNiMoCuWN25-7-4	1.4501

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Ni	Mo	Cu	Nb	P	S	Co	W	N
Min				24.0	8.0	2.5		-			-		0.20
Max	0.03	1.0	2.5	27.0	10.5	4.5	1.5	-	0.03	0.02	-	1.0	0.30
Type	0.012	0.50	0.60	25.5	9.2	4.0	0.10	0.01	0.02	0.01	0.05	0.05	0.25

All Weld Metal Mechanical Properties

	$R_{p0.2}$ (MPa)	R_m (MPa)	A_5 (%)	KV (J)	
Min	550	760	18	-	-
Max				-	-
Type	650	850	27	+20°C -40°C	150 90

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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