



MIG D25/09

Classification

AWS A5.9 : ER2594

ISO 14343-A : G 25 9 4 N L

Description & Applications

Low carbon content solid wire for GMAW 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	Pren
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	>40.0

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 : 130 -40°C : 90

Welding Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters		Shielding Gas
		Current (A)	Voltage (V)	
GMAW = +	0.8	70 - 180	18 - 26	ISO 14175: M12 (Ar+0.5-5%CO ₂) M13 (Ar+0.5-3%O ₂) 15-20 l/min
	1.0	80 - 220	18 - 28	
	1.2	150 - 320	22 - 32	
	1.6	220 - 380	24 - 34	

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

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